QOL

- WHOQOL-BREF -

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Assessment for Quality of Life of adult rural Lao residents using WHOQOL-BREF

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Abstract

The WHOQOL-BREF containing 26 items was developed for cross-cultural comparison of QOL relevant to global well-being, and is available in more than 40 languages. In this study, we developed the Lao version of the WHOQOL-BREF and tested it on rural Lao residents and examined the relationship between QOL and their life-style characteristics. We randomly selected 224 subjects (98 men and 126 women, mean age: 28.0, range 15 to 47 yrs), and executed face-to-face interviews using the WHOQOL -BREF questionnaire and its related factors such as life-styles and health behaviors.

Three of 5 QOL sub-scores (physical, psychological and conclusive QOL) showed higher scores as the peoples education level become higher. People who have higher economic status showed higher QOL. As for the past and present illness, people who got sick within a month showed lower physical, psychological and conclusive QOL scores. Also, people who feel any discomfort show lower physical and conclusive QOL scores than those without any feeling of discomfort. As for happiness, people who have higher happiness showed higher QOL sub scores except for environment QOL than those who have feeling of lower happiness. About religious behaviors, people who visit the temple many times showed higher psychological QOL scores than those who only go to the temple infrequently, which suggests that spiritual feelings or behaviors may improve psychological well-being. In comparison with our previous data of Japanese healthy community dwellers, QOL sub-scores of the rural Lao residents showed relatively higher psychological, social and conclusive QOL scores, and also showed similar physical and environmental QOL scores. From examining the relationship between QOL scores and its related factors, we found several reasonable and understandable findings. So, we developed a Lao version of WHOQOL-BREF which may be useful. In order to make a better QOL questionnaire, we need to execute face-to-face interviews to gather detailed information about really important things for the well-being of Lao residents.

Introduction

These days, quality of life (QOL) measurements have been recognized as being important in the evaluation of health care. There are many instruments available to measure concepts related to QOL. The world health organization (WHO) has also developed a QOL instrument, the WHOQOL, which captures many aspects of QOL. The abbreviated version of the WHOQOL, the WHOQOL-BREF containing 26 items[1]), was developed for cross-cultural comparison of QOL relevant to global well-being, and is available in more than 40 language versions. Many researchers designing international QOL studies often use this instrument. In this study, we developed the Lao version of the WHOQOL-BREF and tested it on rural Lao residents and examined the relationship between QOL and related life-styles characteristics.

Subjects and methods

In September 2005, we conducted health check-ups for the adult community dwellers of the rural area in Lao. From this population, we randomly selected 224 subjects (98 men and 26 women, mean age: 28.0, range15 to 47 yrs), and executed face-to-face interviews using the WHOQOL-BREF questionnaire, and QOL-related factors such as life-styles and health behaviors.

WHO defined the QOL as "perception of the one s own status of life in relation to personal aim, expectation, norm and interests, under one s culture and sense of values" and proposed the questionnaire composed of 100 items, each of which had 5 levels scores (1994). Based on 40 countries fieldwork using the WHOQOL questionnaire, the common core to those countries was summarized into 26 items, which is referred to as WHOQOL-BREF. The Japanese edition has already been certified for reliability and validity[2]. Physical QOL is calculated as the mean of Q3, Q4, Q10, Q15, Q16, Q17 and Q18 (among them, scores of Q3 and Q4 are reversed). Psychological QOL is calculated as the mean of Q5, Q6, Q7, Q11, Q19 and Q26 (among them, score of Q26 is reversed). Social QOL is calculated as the mean of Q20, Q21 and Q22. Environmental QOL is calculated as the mean of Q8, Q9, Q12, Q13, Q14, Q23, Q24 and Q25, and conclusive QOL is the mean of Q1 and Q2.

Though the validity to apply WHOQOL-BREF for Lao people has not been confirmed, we have made a Lao translation from the Thai version of WHOQOL-BREF with checking by back-translation method in order to use this assessment for Lao residents. The Thai version of the WHOQOL-BREF has already been developed and used, and both languages are similar. We think the modification of Thai WHOQOL-BREF to the Lao version may be acceptable in order to assess the QOL of Lao residents. Thus, the validity of these QOL scores is not certain, but there is no other way to evaluate QOL status, so we have calculated 5 QOL sub-scores for Lao residents using the normal formula described above.

We also measured the life-styles and behavior characteristics of rural Lao residents which may be related to their QOL status, and examined their relationships. The questionnaire of life-styles and behaviors includes education, marital status, economic and living status, smoking and alcohol habits, past and present illness, health behaviors, feeling of happiness, and religious behaviors.

Results and Discussion

Age distribution of the subjects is shown in the Fig 1.

There were no di erences in the 5 QOL sub-scores among ages (date are not shown).

Fig1. Age distribution of the subjects
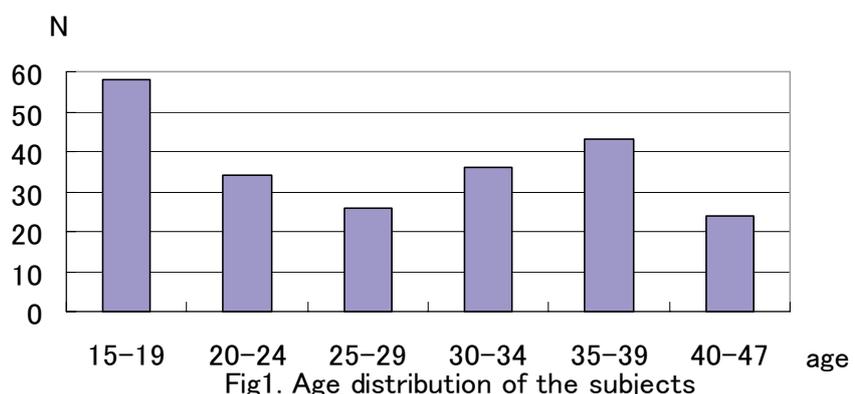
Five QOL sub-scores of the subjects by gender are shown in Table1 and Fig 2. We could see no differences for the 5 QOL sub-scores between genders. Significantly higher QOL scores for females was recognized in Q14 (To what extent do you have the opportunity for leisure activities?) and in Q21 (How satisfied are you with your sex life?), which suggests that females may have higher QOL, when compared to males, in several situations.

In comparison with our previous data of Japanese healthy community dwellers3), QOL sub-scores of the rural Lao residents showed relatively higher psychological, social and conclusive QOL scores, and also showed similar physical and environmental QOL scores. It is uncertain why the Lao residents showed higher QOL than other Japanese; more intensive research will be needed to reveal these differences.

Table 1. Five QOL sub-scores, and Q14, 21 by gender

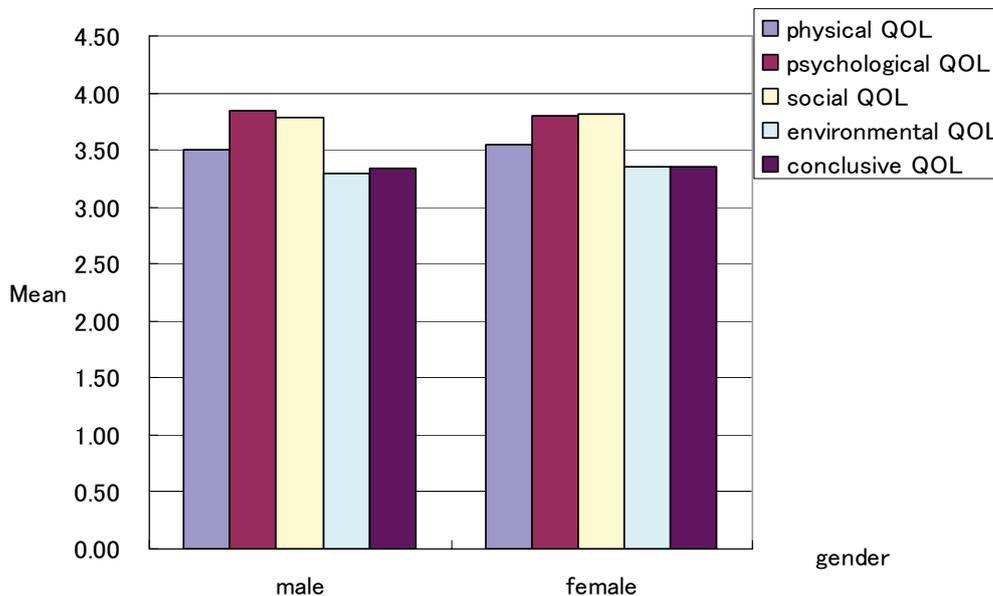|	male		female		
	N	Mean±SD	N	Mean±SD	
physical QOL	98	3.50±0.49	126	3.55±0.44	n.s.
psychological QOL	98	3.84±0.47	126	3.80±0.49	n.s.
social QOL	95	3.79±0.63	119	3.82±0.67	n.s.
environmental QOL	98	3.29±0.50	126	3.36±0.49	n.s.
conclusive QOL	98	3.34±0.66	126	3.36±0.71	n.s.
Q14	98	3.05±0.91	126	3.39±0.96	p=0.008
Q21	95	3.55±0.94	119	3.87±1.02	p=0.02

Fig 2. QOL sub-scores by gender

Five QOL sub-scores of the subjects among different education levels are shown in Table2.

Three of 5 QOL sub-scores (physical, psychological and conclusive QOL) showed higher scores as the education level became higher.

We could not see any difference in QOL scores for marital status.

For economic and living status, the questionnaire for household rice status revealed the relationship with QOL sub-scores, except for social QOL. People who had higher economic status showed higher QOL (Table 3).

In relation to smoking and drinking habits, only psychological QOL showed higher scores in the alcohol drinkers as compared with non-drinkers (3.96± 0.45 vs. 3.77± 0.49; p=0.015)

Table 2. QOL sub-scores among education levels.

	Primary		Secondary		Tertiary or more		
	N	Mean±SD	N	Mean±SD	N	Mean±SD	
physical QOL	64	3.41±0.49	39	3.57±0.42	16	3.64±0.57	p=0.043
psychological QOL	64	3.63±0.54	39	3.86±0.43	16	4.07±0.45	p<0.001
social QOL	64	3.80±0.59	37	3.79±0.68	15	3.88±0.69	n.s.
environmental QOL	64	3.25±0.63	39	3.34±0.44	16	3.46±0.36	n.s.
conclusive QOL	64	3.23±0.62	39	3.35±0.72	16	3.75±0.53	p=0.013

Table 3. QOL sub-scores among household rice status

	surplus		deficit or neutral		
	N	Mean±SD	N	Mean±SD	
physical QOL	55	3.64±0.47	169	3.49±0.46	p=0.038
psychological QOL	55	3.92±0.45	169	3.78±0.49	p=0.053
social QOL	53	3.86±0.74	161	3.78±0.62	n.s.
environmental QOL	55	3.43±0.47	169	3.30±0.50	p=0.088
conclusive QOL	55	3.56±0.69	169	3.28±0.67	p=0.008

As for past and present illness, people who got sick within a month showed lower physical psychological, and conclusive QOL scores (Table 4). Also, people who felt any discomfort showed lower physical and conclusive QOL scores than those without feeling any discomfort (Table 5).

Table 4. Got sick within a month

	yes		no		
	N	Mean±SD	N	Mean±SD	
physical QOL	105	3.43±0.43	117	3.61±0.47	p=0.003
psychological QOL	105	3.76±0.49	117	3.87±0.47	p=0.095
social QOL	104	3.82±0.65	108	3.78±0.65	n.s.
environmental QOL	105	3.33±0.53	117	3.33±0.47	n.s.
conclusive QOL	105	3.25±0.73	117	3.43±0.64	p=0.052

Table 5. Discomfort feeling

	yes		no		
	N	Mean±SD	N	Mean±SD	
physical QOL	64	3.44±0.42	160	3.56±0.48	p=0.074
psychological QOL	64	3.78±0.51	160	3.83±0.47	n.s.
social QOL	62	3.81±0.69	152	3.80±0.64	n.s.
environmental QOL	64	3.29±0.53	160	3.34±0.48	n.s.
conclusive QOL	64	3.09±0.60	160	3.46±0.69	p<0.001

People who utilized the Health Center showed higher conclusive QOL scores than those who did not utilize it (3.39 ± 0.69 vs. 3.15 ± 0.63; p=0.046).

As for the feeling of happiness, people who answered yes for happiness feeling showed higher QOL sub-scores, except for environment QOL, than those who answered no or do not know (Table 6).

Table 6. Feeling of happiness

	yes		no		do not know		
	N	Mean±SD	N	Mean±SD	N	Mean±SD	
physical QOL	169	3.57±0.46	39	3.35±0.46	16	3.57±0.48	p=0.026
psychological QOL	169	3.89±0.44	39	3.58±0.61	16	3.59±0.39	p<0.001
social QOL	162	3.80±0.62	37	3.80±0.74	15	3.87±0.74	n.s.
environmental QOL	169	3.39±0.45	39	3.19±0.54	16	3.01±0.62	p=0.002
conclusive QOL	169	3.45±0.66	39	3.08±0.68	16	2.97±0.69	p<0.001

About religious behaviors, people who visit the temple more than 7 times in 3 months showed higher psychological QOL scores than those who go to the temple less often (4.01 ± 0.41 vs. 3.77 ± 0.49; p=0.003) , which suggests that spiritual feelings or behaviors may improve psychological well-being.

Conclusions

In this study, we developed the Lao version of WHOQOL-BREF and applied it to adult rural Lao residents. At the same time, we gathered information which might be related to QOL. From examining the relationship between QOL scores and related factors, we found several reasonable and understandable findings. So, our developed Lao version of WHOQOL-BREF may be meaningful and useful. In order to develop a better QOL questionnaire, we need to execute face-to-face interviews to gather detailed information about really important things for the well-being of Lao residents.

Acknowledgements

References

1)   http://www.who.int/evidence/assessment-instruments/qol/documents/WHOQOL_BREF.pdf

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98　　　　　126　　　　　　28.0　　15　　47　　　　　　　WHOQOL-BREF

　　　　　　　　　　QOL(Quality of Life)　　　　　　QOL

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WHOQOL- BREF(2005)

_____

I.D. number

ABOUT YOU:

Before you begin we would like to ask you to answer a few general questions about yourself: by circling the correct answer or filling in the space provided.

What is your gender?   Male   Female

How old are you?   years.

What is the highest education you received?

1. Non-formal primary school	5. Tertiary
2. Formal primary school	6. University
3. Lower secondary school	7. None at all
4. Upper secondary school	

What is your marital status?

1. Single	4. Divorced
2. Married	5. Widowed
3. Separated	

Instructions

This assessment asks how you feel about your quality of life, health, or other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last 4 weeks.

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

	Very poor	Poor	Neither poor nor good	Good	Very good
1. How would you rate your quality of life?	1	2	3	4	5

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2. How satisfied are you with your health?	1	2	3	4	5

The following questions ask about how much you have experienced certain things in the last 4 weeks.

	Not at all	A little	A moderate amount	Very much	An extreme amount
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4. How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5. How much do you enjoy life?	1	2	3	4	5
6. To what extent do you feel your life to be meaningful?	1	2	3	4	5
7. How well are you able to concentrate?	1	2	3	4	5
8. How safe do you feel in your daily life?	1	2	3	4	5
9. How healthy is your physical environment?	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last 4 weeks.

	Not at all	A little	Moderately	Mostly	Completely
10. Do you have enough energy for everyday life?	1	2	3	4	5
11. Are you able to accept your bodily appearance?	1	2	3	4	5
12. Have you enough money to meet your needs?	1	2	3	4	5
13. How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14. To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

	Very poor	Poor	Neither poor nor Good	Good	Very good
15. How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how good or satisfied you have felt about various aspects of your life over the last 4 weeks.

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16. How satisfied are you with your sleep?	1	2	3	4	5
17. How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18. How satisfied are you with your capacity for work?	1	2	3	4	5

19. How satisfied are you with yourself?	1	2	3	4	5
20. How satisfied are you with your personal relationships?	1	2	3	4	5
21. How satisfied are you with your sex life?	1	2	3	4	5
22. How satisfied are you with the support you get from your friends?	1	2	3	4	5
23. How satisfied are you with the conditions of your living place?	1	2	3	4	5
24. How satisfied are you with your access to health services?	1	2	3	4	5
25. How satisfied are you with your transport?	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last 4 weeks.

	Never	Seldom	Quite often	Very often	Always
26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Do you have any comments about the assessment?

THANK YOU FOR YOUR HELP

Questionnaire for Life History (2005)

1.smoking ：(1.no、2.yes number   years   )

2.alcohol ：(1.no、2.yes： how many days a week   years   )

3. sleep：(sleep time   hours ,time to go to bed   wake up time   )

4. Past History: 1) Diarrhea 2)Tuberculosis 3)Malaria 4)Parasitic worm 5) Deng fever 6)Tetanus 7)Hepatitis B 8)Diphtheria 9)Pertussis 10).poliomyelitis 11). Measles 12). Hypertension 13). others (   )

5. Do you stay in your own house?   Yes   2). No

6. Did you get sick within 30 days ?

 1). No.   2). Yes. (include chronic disease)→ the name of disease(   )

7. How do you do when you get sick?   (your first choice):check only one

        1). go to Health Center   2). go to provincial hospital

        3). take medicine by yourself   4). go to traditional treatment

        5). nothing to do   6). others (   )

8. Do you feel any discomfort now?

        1)No   2). Yes → what is it?   (   )

9. Do you feel happy now?   1). Yes.   2). No.   3). don't know

10. Who will help you when you need help? (multiple answer OK)

        1). Family members   2). Relatives   3). Neighborhood   4). Community volunteer.

        5). Priest   6). None   7). Others (   )

11. Do you know Health Center ?   1). Yes.   2). No.

12. Have you ever been to Health Center?   1). Yes.   2). No.

13. How many times have you been to the temple during last three months?

        1). Not at all   2). 1-2 times   3). 3 times   4). 4-6 times 5). more than 7 times

14. How often do you offer food to the monks?

      1) Never   2). Rarely   3). Sometime   4). Often   5). Usually

15.   How often do you pray per month?   (   )

16.   To what extent your household rice status is

        1) Extremely deficit   2) Deficit

        3)Neutral   4)Surplus   5)Extremely surplus