Regular Article

Application of Empowerment Scale to patients with schizophrenia: A Japanese experience

SUMIE YAMADA, MS¹ AND KUNIFUMI SUZUKI, MD, PhD²

¹Graduate School of Medicine, Nagoya University and ²School of Health Sciences, Nagoya University, Aichi, Japan

Correspondence address

Sumie Yamada, MS, Graduate School of Medicine, Nagoya University, 1-1-20 Daikouminami, Higashi-ku, Nagoya 461-8673, Japan. E-mail: junei6@msn.com
Abstract

Rogers et al. invented the Empowerment Scale, and conducted a factor analysis, which revealed five factors: self-esteem, power, activism, righteous anger and optimism. Hata et al. translated this scale into Japanese and named it Empowerment Scale-J. They found that the score of the righteous anger factor does not have a significant correlation with the overall score of the Empowerment Score-J. With the aim of clarifying the characteristics of the Empowerment Scale-J, in this study we assessed the levels of empowerment in seventy-two Japanese patients with chronic schizophrenia using the scale, and examined the relation between the results of the scale and the results of the following two batteries: SAS II (a scale for the degree of social adjustment), EASQ (a questionnaire to assess some aspects of attitude toward negative circumstances). The four results were obtained as follows. 1) We found no significant correlation between the score of righteous anger factor and overall score as to correlation between each of five factors and overall score of Empowerment Scale-J. 2) No significant correlation was found between the Empowerment Scale-J score and the degree of social adjustment. 3) Significant correlations were found between some subscales of Empowerment Scale-J and the degree of social adjustments; self-esteem and optimism, but inverse correlations were obtained between the power factor as well as the righteous anger factor and the degree of social adjustment. 4) The results of EASQ revealed that the subject with a higher righteous anger score shows a tendency quite opposite to that of one with higher social adjustment. On the basis of these results, we suggest that the behavior related to the righteous anger among Japanese persons with schizophrenia may have some negative influence on their social adaptation and that in applying Empowerment scale-J we should pay due attention to the significance of the righteous anger factor of the scale.

Key words schizophrenia, empowerment, social adjustment, anger.
INTRODUCTION

Many years have passed since the concept of empowerment was introduced into the fields of politics and social welfare.\textsuperscript{1-4} However, there is still no single definition of this concept acceptable to all, so it can only be expressed multi-dimensionally.\textsuperscript{5-7} For example, Segal \textit{et al.}\textsuperscript{8} stated that empowerment is the process of “gaining control over one’s life and influencing the organizational and social structure in which one lives.” Rappaport,\textsuperscript{9,10} on the other hand, defined psychological empowerment as “the connection between a sense of personal competence, a desire for and a willingness to take action in the public domain.”

Historically, the concept of empowerment was primarily introduced and developed in the political field.\textsuperscript{1} This concept originated in the political movement to overcome the circumstances surrounding victims of racism, gender-discrimination\textsuperscript{11,12} and so on. However, in the course of time, this concept was gradually extended to cover persons with chronic medical disorders\textsuperscript{13,14} or physical disabilities.\textsuperscript{15} And as it is only natural to suppose that persons with psychiatric disorders have become powerless because of their disorders, the concept of empowerment has also attracted attention in the field of psychiatric rehabilitation.\textsuperscript{16-20}

Rogers \textit{et al.}\textsuperscript{21} conducted a large-scale survey for the purpose of developing a consumer-constructed scale to measure the level of empowerment among users of mental health services. In first step, they held discussions with a research advisory board consisting of consumers to delineate basic attributes of empowerment and developed an initial scale of 48 items in reference to some proximate scales such as the Self-Efficacy Scale and Rosenberg Self-Esteem Scale. Then they tested this initial scale on a sample of 100 subjects. After factor and reliability analysis, they retained 28 items having the highest factor loadings for the final scale, that is, the Empowerment Scale. In the second step, they tested this Empowerment Scale on 271 members of six self-help programs, examined the validity of the scale and conducted factor analysis, which revealed five factors: self-esteem, power, activism, righteous anger, and optimism. On the basis of this study
Rogers\textsuperscript{21} stated that “the results of our study suggest that an empowered person is one who has a sense of self-worth, self-efficacy, and power. The empowered person recognizes use of anger as a motivating force to instigate social change and is optimistic about the ability to exert control over his or her life.”

Scott \textit{et al.}\textsuperscript{22} also proved the consistency of the Empowerment Scale by examining the correlation between the factors. As to the correlation between this scale and the other scales, Corrigan \textit{et al.}\textsuperscript{23,24} found a significant correlation between the results of this scale and those of Lehman’s Quality of Life Interview (QOLI)\textsuperscript{25} as well as those of the Rosenberg Self-esteem Scale,\textsuperscript{26} but found no significant correlation between this scale and Global Assessment of Functioning (GAF). Although the concept of empowerment is generally mentioned in connection with social participation or social adaptation, one may well question whether the level of empowerment has a direct relation with social adaptation.

Hata \textit{et al.}\textsuperscript{27} translated this scale into Japanese and named it Empowerment Scale-J. They proved its reliability and validity among Japanese patients with schizophrenia.\textsuperscript{27} However, from examining the relation between each factor and total score of the Empowerment Scale-J, they found no significant correlation between the righteous anger factor score and the total score. As to the other four factors, they found a significant correlation between each of them and the total score. On the basis of this result they even mentioned that the righteous anger factor might have some contents inconsistent with the overall empowerment. So we should say that there is room for argument about the application of the Empowerment Scale-J to the psychiatric field in Japan. Especially, it may be fruitful to clarify the significance of the factor of righteous anger in the Empowerment Scale-J.

In the present study, in order to clarify the characteristics of the Empowerment Scale-J, first of all, we apply the scale to Japanese persons with chronic schizophrenia and assess the correlation between the results of each factor and the overall score, and then examine the relation between the
results of the scale and the degree of social adjustment. In the next step, to investigate the significance of the righteous anger in the scale, we examine the attitude towards the negative circumstances of the subjects\textsuperscript{28} (assessed by EASQ, detail explanation later), and analyze the relation between this result and the results of the Empowerment Scale-J.

This study was approved by the Ethics Review Committee of Nagoya University School of Medicine.

MATERIALS AND METHODS

Subjects

This investigation was performed in the following two institutions during the period of 1st August to 30th December, 2005. One is a day care center belonging to a mental hospital situated in Aichi Prefecture, Japan. The other is a vocational training center also belonging to the same hospital. From the 142 participants of these two institutions, 72 subjects (mean age=41.7 years, SD=10.7, male 43, female 29) were recruited by the following criteria. 1) Diagnosed by the psychiatrist in charge as having schizophrenia according to DSM-IV-R. 2) Not hospitalized for at least three months before the investigation. 3) Age range from 25 to 65. 4) Provided informed consent in writing to participate in this study.

Measures

The following variables were assessed: 1) the level of empowerment, 2) the degree of social adjustment and 3) some aspects of social attitude toward negative circumstances. The scales and the assessment tools used in this study were as follows.

1) Japanese-language version of Empowerment Scale (Empowerment Scale-J)

As mentioned above, Rogers et al.\textsuperscript{21} invented the Empowerment Scale, which is generally
employed to measure the level of empowerment in persons with mental disorders. This scale is a self-administered questionnaire and has 28 items including several reverse items. On this scale, a high score indicates a high level of empowerment. Hata et al.\textsuperscript{27} translated this scale into Japanese and named it the Empowerment scale-J. They proved its reliability and validity.\textsuperscript{27} Rogers and colleagues carried out a factor analysis of the original scale, which revealed its underlying dimensions to be: self-esteem, optimism, activism, righteous anger and power. These five factors are generally used as a subscale, and give five scores by summing up the scores of all items belonging to each subscale. Parts of the Empowerment Scale-J are cited in Table 1.

(Table 1)

2) Social Adjustment Scale II (SAS II)

The Social Adjustment Scale II (SAS II) was developed by Weissman et al.\textsuperscript{29} and translated into Japanese by Nakano et al.\textsuperscript{30} The reliability and validity\textsuperscript{30} of the Japanese version were also proved by the translators. This scale is a self-administered questionnaire with 58 items that can evaluate how adaptable patients with schizophrenia have been in their living surroundings, and is generally used to assess the effectiveness of treatment for schizophrenia. On this scale, a low score indicates a high degree of social adjustment. This scale has no items synonymous with those of Empowerment Scale-J.

3) Expanded Attributional Style Questionnaire (EASQ)

In order to assess the attitude towards negative circumstances, we employed the Expanded Attributional Style Questionnaire (EASQ). The original version of this questionnaire was devised by Peterson and colleagues\textsuperscript{31} on the basis of the learned helplessness theory. Narita et al.\textsuperscript{32} translated this questionnaire into Japanese and proved the reliability and validity of the Japanese version\textsuperscript{32}. This questionnaire consists of 22 items which give different negative circumstances. The
first item is cited in Table 2. Subjects are asked to imagine each of the circumstances and to state what the major cause would have been if it had occurred to them. They then rate the internality of the cause, its stability, its globality and its controllability (cf. Table 2). Scores are computed by summing overall the items for each of the four aspects (internality, stability, globality and controllability).

(Table 2)

**Statistical analysis**

We used the Kolmogorov-Smirnov test to verify the normality of the distribution of each of the data.

We used Pearson's correlation coefficient test to examine the correlations between the score of each factor and the overall score of Empowerment Scale-J, and the correlation between the results of Empowerment Scale-J and those of SAS II. In this way, we assessed the correlation between the overall score of Empowerment Scale-J and the SAS II score, and then, between each score of the five subscales and SAS II, namely, self-esteem and SAS II, righteous anger and SAS II, and so on.

We also used Pearson's correlation coefficient test to examine the correlation between the results of Empowerment Scale-J and those of EASQ. As the four independent aspects (internality, stability, globality, and controllability) of EASQ give four scores, respectively, we assessed the correlations between those four scores and the scores of the five subscales of the Empowerment Scale-J.

All statistical analyses were performed with SPSS (version 10).

**RESULTS**

The demographic features of the subjects are summarized in Table 3.
The results of the Kolmogorov-Smirnov test were indicated in Table 4, which revealed that all the data were normatively distributed.

The correlations between the overall score and each of the subscale scores of Empowerment Scale-J are indicated in Table 5. A significant correlation was found between overall scores and self-esteem, optimism, activism and power ($r=0.621$, $r=0.628$, $r=0.651$, $r=0.626$, $P<0.01$). But no significant correlation was found between the overall score and righteous anger ($r=0.218$, n.s.).

The correlations between the subscales of Empowerment Scale-J are also indicated in Table 5. Significant correlations were found between self-esteem and optimism ($r=0.853$, $P<0.01$), between activism and power ($r=0.343$, $P<0.01$), between power and righteous anger ($r=0.454$, $P<0.01$). However, self-esteem and optimism showed inverse correlations with righteous anger ($r=-0.508$, $r=-0.498$, $P<0.01$).

The results of correlations between Empowerment Scale-J and SAS II are indicated in Table 6. No significant correlation was found between total score of Empowerment Scale-J and the degree of social adjustment ($r=0.052$, n.s.). However, self-esteem and optimism had significant correlations with the degree of social adjustment ($r=0.671$, $r=0.665$, $P<0.01$). In contrast to this result, power and righteous anger showed inverse correlations with the degree of social adjustment ($r=-0.268$, $r=-0.886$, $P<0.01$).

The results of correlations between Empowerment Scale-J and EASQ are indicated in Table 7. A significant correlation was found between the total score of Empowerment Scale-J and the scores of the four aspects of EASQ. The result shows that a person with higher Empowerment tends to consider bad circumstances as “due to other people,” and they “will never again be
present,” “influence just this particular situation,” and he or she “can control the circumstances.” (Table 7)

The results of the correlation between the five factors of Empowerment scale-J and four aspects of EASQ show the following tendencies 1) The one with a higher self-esteem score tends to consider that the bad circumstances “will never again be present” and he or she “can control the circumstances.” 2) The one with a higher optimism score tends to consider bad circumstances are “due to other people,” “will never again be present,” “influences just this particular situation” and he or she “can control the circumstances.” 3) The one with a higher score in activism tends to consider bad circumstances are “due to other people,” “will never again be present” and “influences just this particular situation.” 4) The one with a higher score in power has a tendency to think bad circumstances are “due to other people,” “will never again be present” and “influences just this particular situation.” 5) And the one with higher righteous anger score is likely to think bad circumstances are “due to other people,” “will never again be present” and he or she “can not control the circumstances.”

The result of the correlation between the degree of social adjustment and the four aspects of EASQ are also indicated in Table 7. The result revealed that a person with higher social adjustment tends to consider that circumstances are “due to him or herself,” yet “able to control the circumstances.”

**DISCUSSION**

As we mentioned in the Introduction, Hata et al., the translators of the Empowerment Scale, examined the relation between each factor and the overall score of the Empowerment Scale-J, and found no significant correlation between the of righteous anger factor score and the overall score, but found one between each of the other four factors and the overall score. They even mentioned that the righteous anger factor might have some contents inconsistent with overall empowerment.
In this study, we also obtained similar results. In Empowerment Scale-J, the righteous anger factor had no significant correlation with the overall score, but the other four factors did. As to the correlations between subscales of the Scale, the righteous anger showed inverse correlations with the power and the optimism. Therefore we should insist the specificity of the righteous anger factor in the Empowerment Scale-J. Since to our knowledge such results had never been reported about the original Empowerment Scale of Rogers, due attention must be given to the significance of the righteous anger factor when we apply the Japanese version to Japanese subjects.

Given we found no correlation between the results of Empowerment Scale and those of the social adjustment scale, although each of these two scales is intended to measure a kind of social functioning, the respective social functions they stress may be different from each other. We can easily suppose from the nature of concepts that the concept of empowerment emphasizes the ability to work on one’s actual surroundings in life, while the concept of social adjustment emphasizes the ability to settle into one’s living surroundings.

We can grasp this difference more clearly by referring to the correlations between the SAS II score and scores of the five factors of the Empowerment Scale-J (self-esteem, power, activism, righteous anger and optimism), and conjecture as to which factor this difference is attributable.

Among the five factors, self-esteem and optimism show a positive significant correlation with the degree of social adjustment. However, it is noteworthy that power factor and righteous anger factor show negative significant correlations with the degree of social adjustment. These two factors, which seem to have some relation with aggressiveness, concern the ability to work on one’s actual surroundings. So we can say that one of the reasons why no significant correlation was found between the total scale of the Empowerment Scale-J and the degree of the social adjustment is the existence of the power factor and righteous anger factor.

To explain more clearly the difference between the Empowerment Scale-J and SAS II, it may be useful to refer to the results of EASQ, with which we can deduce how a subject assigns the
reason why negative circumstances took place.

Both the Empowerment Scale-J and the degree of social adjustment showed the same tendency of correlation with the aspect of “controllability.” That is to say, the higher the subject’s score is, the more he or she thinks they can control the circumstances. But concerning the aspect of “internality,” they showed opposite tendencies. The subject with a higher Empowerment Scale score tends to attribute bad circumstances to others, while the better-adjusted person considers the circumstances to be his or her own fault. In this respect, there is an obvious difference between the two scales. The locus of control reflected on the result of “internality” in the EASQ may make clear the difference between the two scales. The scale of empowerment emphasizes the ability to work on one’s living surroundings, while the scale of social adjustment focuses more on settling into one’s living surroundings.

Furthermore, regarding the relation between each of the five empowerment factors and the results of EASQ, here again, the result of the righteous anger factor showed an intriguing tendency. Regarding the aspect of “internality,” a person with a higher righteous anger score tends to attribute bad circumstances to others; on the other hand, regarding the aspect of “controllability,” he or she tends to consider the circumstance to be beyond one’s control. Compared to the relation between the result of SAS II and the result of EASQ, this result shows well the nature of the righteous anger factor. A person assessed to be better-adjusted by SAS II tends to consider bad circumstances are “due to him or herself” but that he or she “can control the circumstances.” This is the exact opposite pattern of the person with a higher “righteous anger” score. Concerning the tendencies of the attitude towards such negative circumstances, we can suggest that the righteous anger factor has some negative influence on social adjustment. Taking the nature of the concept of empowerment into consideration, it is important to notice that a person with higher righteous anger factor score tends to think that he or she can not control the negative circumstances. As we consider that the empowerment scale is a scale to assess the ability to control the one’s surroundings, we should
insist the possibility that the righteous anger factor might have some contents inconsistent with overall empowerment, the very possibility Hata et al. 27 also pointed out.

In the righteous anger factor, the following four items are included: “Getting angry about something is often the first step toward changing it,” “People have no right to get angry just because they don’t like something (reverse item),” “Getting angry about something never helps (reverse item),” and “Making waves never gets you anywhere (reverse item).” It is easy to imagine that the tendencies described in those items sometimes cause problems things in daily life in Japanese society.

As Green et al. 33 stated, in “empowerment-based therapy” the therapist views the client as having strengths and resources and fosters the client’s self-determination. And a therapist should focus on identifying and using the client’s strengths and coping skills rather than on their deficits and dysfunction. But it is not always recommended to foster the ability of expressing one’s anger even if the anger is related to one’s decision making process.

In naming the five factors of his Empowerment Scale, Rogers 21 chose to add the adjective “righteous” to the word anger. However, it is not easy to discuss with precision what righteous means in this context. This question may naturally reflect the value system of each person. So, it may be more natural to consider that “righteous anger” has some correlation with the degree of QOL rather than with the degree of social adjustment. Either way, it is inevitable to move on to the problem of cultural context, which naturally influences one’s value system, when discussing the issue of the significance of “righteous anger” in the Empowerment Scale-J.

More detailed investigation about the significance of anger in Japanese culture is necessary to reach any conclusion.
CONCLUSION

The levels of empowerment in seventy-two patients with chronic schizophrenia were assessed using the Empowerment Scale-J. We examined the relation between the results of the scale and the results of SAS II and EASQ.

1) We found no significant correlation between the score of righteous anger factor and overall score, with regard to the correlation between each of the five factors and the overall score of Empowerment Scale-J.
2) No significant correlation was found between the Empowerment Scale-J score and the degree of social adjustment.
3) Significant correlations were found between some subscales of Empowerment Scale-J and the degree of social adjustment, namely, self-esteem and optimism, but inverse correlations were found between the power factor as well as the righteous anger factor and the degree of social adjustment.
4) The results of EASQ revealed that the person with a higher righteous anger score shows a tendency quite opposite to that of the one with higher social adjustment.

So we conclude that the behavior related to righteous anger among the Japanese persons with schizophrenia may have some negative influence on their social adaptation and that in applying the concept of empowerment to Japanese patients with schizophrenia, at least regarding the empowerment assessed by Empowerment scale-J, we should pay attention to the significance of the righteous anger factor of the scale.

REFERENCES


25. Lehman AF. The effects of psychiatric symptoms on quality of life assessments among the


Table 2. First item of Expanded Attributional Style Questionnaire

You have been looking for a job unsuccessfully for some time.

1. Write down the one *major* cause

2. Is the cause of your unsuccessful job search due to something about you or something about other people or circumstances? (circle one number)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally due to other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Totally due to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. In the future when looking for a job, will this cause again be present? (circle one number)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will never again be present</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Will always be present</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Is the cause something that just influences looking for a job or does it also influence other areas of your life? (circle one number)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influences just this particular situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Influences all situations in my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Do you think that this cause is controllable by yourself? (circle one number)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot control the circumstance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Can control the circumstance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>