

### Study on the order of painting in Japanese day-care users' coloring activity

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#### Introduction:

The coloring activity is commonly used in Japanese OT scene for elder people. A participant selects an area surrounded by a line, picks up a color-pencil of adequate color and then starts coloring. Since we often observed that order of the coloring has some tendency, we tried to clarify the presence of tendency.

#### Objectives:

The objects were 18 elder people (age: 75.4±11.9) who were receiving care at Japanese Day-care center.

#### Methods:

The participants were instructed to paint a simple line drawing of a man and woman pounding rice with a pestle (size: 297 x 210mm) by using 24-color pencils. It is an annual event of Japan. To record the order of painting, the line drawing was labeled with following 16 areas(A through P); A: Hair, B: Face, C: Clothes, D: Hands limb respectively of rice-pounding man, E: Hair, F: Face, G: Clothes, H: limb respectively of woman assisting him, I: Wood mallet, J: Mortar, K: Rice-cake in the mortar, L: Bucket, M: Stand of bucket, N: Table, O: Rice-cake on the table, P: Background.

#### Results:

The average of the painting order was as follows: A:4.5, B:9.0, C:5.0, D:8.5, E:4.6, F:8.9, G:7.7, H:9.0, I:5.0, J:7.3, K:11.6, L:8.8, M:9.1, N:7.4, O:12.8, P:15.1. Concordance of the paint order analyzed by Kendall's coefficient of concordance was significant ( $p<0.01$ ). Positive correlation of the painting order was significant in the following 13 pairs according to Spearman's correlation coefficient: A-E, B-D\*, B-F\*, B-H\*, D-F, D-H, F-H, I-J\*, I-L\*, I-M\*, J-L\*, J-P\*, K-O\*. (\*:  $p<0.01$ , others:  $p<0.05$ )

#### Conclusion:

Areas A, C, E and I were painted earlier (order < 5.0). It indicates that participants started painting from principal person and device of the picture. The positive correlation in the painting order indicates that each area of the pair was painted with similar order. Among those pairs, adequate color for each pair was same in 10 pairs and remaining 3 pairs located nearby. These results indicate the presence of tendencies in the order of coloring. This information may be useful for clinical assessment and intervention by OTR for elder people participating in coloring activity.