

How to score the Stroke Social Network Scale

To calculate a score

Overall score:

The overall score is the mean score of all the items (ie the items should be added together, and then divided by 19). To work out the score for each item, see the attached table ('Scoring the Stroke Social Network Scale').

A better overall score is indicative of a stronger social network. Scores range from 0 to 100.

Scores for the five factors:

The scale is made up of five factors:

Children (C1, C2, C3, C4)

Relatives (R1, R2, R3)

Friends (F1, F2, F3, F4)

Groups (WN2, WN3)

Satisfaction (S1, S2, S3, S4, S5, L1)

Factors may be analysed independently. To calculate a score for a specific factor, add up the scores for each item then divide by the number of items in that factor. For example, to work out a Children factor score:

$$[C1 + C2 + C3 + C4] / 4$$

Scoring of non-applicable items:

Some items will be non-applicable. For example, if someone has no children, items C2 and C3 are non-applicable. These should be scored as 0 (not at all). For the relevant satisfaction item (S1), the overall satisfaction score (S5) should be imputed. Thus, for example, if they have no children, and their overall satisfaction score is 60 (a little satisfied), they should be given 60 for the item S1 ('How satisfied were you with the frequency of contact with your children?').

A similar process will occur if someone has no relatives or no friends.

Other points to note:

The scoring system is for whole numbers. Thus if someone has said they have 'two to three' close friends, this should be rounded up to three.

When estimating how many close friends or relatives a person has, it is useful to give the definition of 'close', noted in the scorer's form (ie someone you feel at ease with, and can talk about what is on your mind).

For those with aphasia, it is acceptable to use total communication strategies (eg. gesture, drawing, and other communication modalities) to assist a person to complete the assessment.

Who can the Stroke Social Network Scale be used with?

The scale has been validated on the stroke population, including those with and without aphasia. Those with mild, moderate and severe expressive aphasia can complete the scale. However, it is not suitable for those with severe receptive aphasia (who score less than 7/15 on the receptive domains of the Frenchay Aphasia Screening Test).

Further information about the scale

The psychometric properties of this scale are described in the following paper:

Northcott S. & Hilari K. (2013) Stroke Social Network Scale: development and psychometric evaluation of a new patient-reported measure *Clinical Rehabilitation* 27 (9); 823-33

For any further information, the authors may be contacted:

S.A.J.Northcott@city.ac.uk; k.hilari@city.ac.uk

Descriptive statistics are given below, based on the sample of stroke survivors described in the above paper.

Descriptive statistics: Stroke Social Network Scale

Social Networks (Stroke Social Network Scale)			
Overall scale	Pre-morbid	3 months post stroke	6 months post stroke
Social Network			
Mean (SD)	60.69 (15.22)	58.04 (16.74)	56.78 (15.44)
Range	11.32 – 91.70	6.84 – 92.81	10.26 – 85.15
<i>n</i>	<i>n</i> = 87	<i>n</i> = 75	<i>n</i> = 71
Subdomains			
Satisfaction			
Mean (SD)	85.17 (15.61)	84.60 (19.49)	82.56 (19.23)
Median (IQR)	88.33 (78.33 – 96.67)	88.33 (80.83– 96.67)	86.67 (80.0– 93.33)
Range	35.83 – 100	3.33 – 100	6.67 – 100
Children			
Mean (SD)	57.60 (35.52)	57.67 (35.74)	58.78 (34.21)
Range	0 – 100	0 – 100	0 – 100
Relatives			
Mean	37.76 (28.55)	39.07 (28.40)	36.78 (29.17)
Range	0 – 88.89	0 – 100	0 – 93.33
Friends			
Mean (SD)	56.98 (24.95)	48.77 (25.55)	43.96 (28.08)
Range	0 – 95	0 – 100	0 – 95
Groups			
Mean (SD)	35.06 (37.10)	27.78 (31.99)	30.98 (34.19)
Range	0 – 100	0 – 100	0 – 100

Having a stroke caused participants' social networks to become weaker: Wilks' Lambda = .82, $F(2, 68) = 7.35$, $p = .001$, $\eta^2 = .18$. Post hoc comparisons showed that baseline social network scores were significantly higher than at six months ($p = .001$). Other differences were not significant.

In terms of the subdomains, only one subdomain showed significant change between baseline and six months: the Friends subdomain, Wilks' Lambda = .80, $F(2, 68) = 8.49$, $p = .001$, $\eta^2 = .20$. Post hoc tests showed that there was a significant difference between baseline and six months ($p < .001$). Although post stroke people became less satisfied with their social network, and had less group involvement, neither of these trends reached statistical significance. The Children factor and the Relatives factor appeared to be particularly stable elements of the network

Scoring the Stroke Social Network Scale

	Item	Response options
C1	Do you have any sons or daughters?	0 = no children; 50 = sons; 100 = sons and/or daughters
C2	In the past month, how often did you see your children?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
C3	In the past month, how often were you in contact with your children by telephone, letter or email?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
S1	How satisfied were you with the frequency of contact with your children?	0 = very dissatisfied; 20 = fairly dissatisfied; 40 = a little dissatisfied; 60 = a little satisfied; 80 = fairly satisfied; 100 = very satisfied
R1	How many close relatives do you have?*	0 = no relatives; 17 = 1 relative; 33 = 2 relatives; 50 = 3 relatives; 67 = 4 relatives; 83 = 5 relatives; 100 = 6 or more relatives
R2	In the past month, how often did you see your relatives?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
R3	In the past month, how often were you in contact with your relatives by telephone, letter, or email?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
S2	How satisfied were you with the frequency of contact with your relatives?	0 = very dissatisfied; 20 = fairly dissatisfied; 40 = a little dissatisfied; 60 = a little satisfied; 80 = fairly satisfied; 100 = very satisfied
F1	How many close friends do you have?*	0 = no friends; 14 = 1 friend; 36 = 2 friends; 43 = 3 friends; 57 = 4 friends; 71 = 5 friends; 86 = 6 friends; 100 = 7 or more friends
F2	In the past month, how often did you see your close friends?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
F3	In the past month, how often were you in contact with your close friends by telephone, letter or email?	0 = not at all; 20 = about once a month; 40 = 2 or 3 times a month; 60 = at least once a week; 80 = 2 or 3 times a week; 100 = every day
S3	How satisfied were you with the frequency of contact with your close friends?	0 = very dissatisfied; 20 = fairly dissatisfied; 40 = a little dissatisfied; 60 = a little satisfied; 80 = fairly satisfied; 100 = very satisfied
S4	How satisfied were you with the frequency of contact with neighbours?	0 = very dissatisfied; 20 = fairly dissatisfied; 40 = a little dissatisfied; 60 = a little satisfied; 80 = fairly satisfied; 100 = very satisfied
WN2	How many groups do you belong to?	0 = no groups; 33 = 1 group; 67 = 2 groups; 100 = 3 or more groups
WN3	How active were you in these groups?	0 = don't belong to any groups; 33 = belong but not active; 67 = fairly active; 100 = very active
C4	How far away does your nearest child or close relative live?	0 = 50+ miles (or no child/relative); 25 = 16-50 miles; 50 = 6-15 miles; 75 = 1-5 miles; 100 = same house
F4	How many of your close friends live nearby? (within 5 miles)	0 = none of them/ no friends; 33 = some of them; 67 = most of them; 100 = all of them
S5	How satisfied are you overall with your social network?	0 = very dissatisfied; 20 = fairly dissatisfied; 40 = a little dissatisfied; 60 = a little satisfied; 80 = fairly satisfied; 100 = very satisfied
L1	How often do you feel lonely?	0 = lonely all the time; 25 = lonely most of the time; 50 = lonely some of the time; 75 = lonely a little of the time; 100 = never lonely

*Definition of 'close friend/relative': people you feel at ease with and/or can talk about what is on your mind.