

# Kingston Caregiver Stress Scale

## ADMINISTRATION AND INTERPRETATION MANUAL

The Kingston Scales and Manuals can be freely downloaded from:

[www.kingstonscales.org](http://www.kingstonscales.org) → Caregiver Stress

or email: [kscales@queensu.ca](mailto:kscales@queensu.ca)

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## **Purpose:**

The Kingston Caregiver Stress Scale (KCSS) is primarily a scale that allows a family caregiver to express their level of perceived stress. It can also be used to monitor changes, in stress levels over time, as the caregiver's situation changes. The scale is designed for community living lay caregivers, not institutional care staff. The caregiver is the individual who provides care on a day-to-day basis in the home; usually a spouse or other relative.

## **Administration:**

The scale may be handed to the caregiver for completion, or one can read the items to the caregiver and ask for a response. Since more than one person may be involved in an individual's care, each person can be interviewed separately and followed over time with the KCSS.

Say to the caregiver **“Some people report feelings of stress surrounding certain aspects of care giving. To what extent, if any, do these apply to you in your role of care giving to your spouse (or relative)? Using a 5 point rating scale, where 1 indicates no stress and 5 indicates extreme stress, indicate the extent of the stress or frustration you feel surrounding the following issues.”**

## **Interpretation:**

Some caregiver stress scales try to determine how much stress an individual **should** be experiencing. There is evidence that these levels do not correlate well with reality, and therefore the KCSS takes a more direct approach by asking how much stress the caregiver actually feels. Instead of asking the one simple question “how much stress do you feel”, we have derived, from a review of the literature, a set of ten questions that represent potential sources of stress to the lay caregiver. We have observed that caregivers are able to compartmentalize their stress and attribute it independently to the ten questions, rather than give one score for all.

These ten responses can be further divided into 3 categories, namely: “care giving”, “family issues”, and “financial problems”. Hence, the 3 sub-divisions of the scale.

As we are assessing a subjective condition, i.e. perceived stress, a score for one person probably does not mean the same thing as a similar score for another. Therefore, the following tables, containing data applicable to the KCSS, should be interpreted with some caution, and is only provided as a rough guide as to what might be expected with the average dementia caregiver.

## The relationship between Caregiver Stress and Dementia-Related Behaviour: (see Kilik & Hopkins, 2019)

An important relationship that has emerged in working with the KCSS is that of caregiver stress and the behavioural changes associated with dementia. These changes as measured by the Kingston Standardized Behavioural Assessment (KSBA<sub>(comm)</sub>) - see references below) are outlined in Table 3.

### Some abbreviations used below:

KCSS = Kingston Caregiver Stress Scale

KSCAr = Kingston Standardized Cognitive Assessment - Revised

BKSCAr = *Brief* Kingston Standardized Cognitive Assessment - Revised

mini-KSCAr = mini-Kingston Standardized Cognitive Assessment - Revised

KSBA<sub>(comm)</sub> = Kingston Standardized Behavioural Assessment - Community Form

KSBA<sub>(ltc)</sub> = Kingston Standardized Behavioural Assessment - Long Term Care Form

MMSE = Mini Mental State Examination

Age = Current age of subject

Education = Years of education

NPT - Neuropsychiatric Behaviours

NPL - Neuropsychological Behaviours

Table 1 - KCSS Individual Question and Section Score Means and Standard Deviations

KCSS Questions											
<i>n</i> =80	1	2	3	4	5	6	7	8	9	10	Total
Mean	<b>2.01</b>	<b>2.00</b>	<b>1.90</b>	<b>1.58</b>	<b>1.78</b>	<b>1.75</b>	<b>2.60</b>	<b>1.29</b>	<b>1.31</b>	<b>1.26</b>	<b>17.45</b>
sd	1.09	1.04	1.14	0.96	1.06	1.03	1.18	0.67	0.78	0.67	6.82
Min	1	1	1	1	1	1	1	1	1	1	10
Max	5	5	5	5	5	5	5	5	5	5	39

KCSS Sub-Section				
	Mean	sd	Min	Max
Care Factor 1-7	<b>13.59</b>	5.71	7	35
Family Factor 8-9	<b>2.60</b>	1.38	2	10
Financial Factor	<b>1.26</b>	0.67	1	4

The following table provides some correlation coefficients between the KCSS and other Kingston Scales, demographic variables and other data.

*Table 2 - Demographics*

Variable	Mean	sd
n = 80		
M=46 F=34		
Age	74.69	7.72
Years of Education	13.55	3.41
Years of Reported Illness	2.16	1.87
MMSE	27.18	1.84
KSCAr Total	98.45	7.72
Memory	33.07	4.75
Language	37.76	1.46
Visual-Motor	27.62	3.72
<i>BriefKSCA</i>	39.23	5.78
mini-KSCA	33.41	5.14
KSBA <sub>(comm)</sub>	12.81	9.05
NPT Behaviours	3.43	3.70
NPL Behaviours	9.39	6.18
KCSS	17.45	6.82

*Table 3 - KCSS x KSBA<sub>(comm)</sub> Correlations (Spearman's rho)*

KSBA Domains	KCSS Total	Care Total	Family Total	Financial Total
Daily Activities	0.77	0.83	0.43	0.24
Atten/Conc/mem	0.44	0.28	0.06	0.13
Emotional	0.49	0.59	0.34	0.03
Aggressive	0.48	0.45	-0.06	0.04
Misperceptions	0.27	0.28	0.28	0.39
Paranoid	0.62	0.53	0.20	0.15
Judgement	0.71	0.72	0.33	0.336
Perseveration	0.12	-0.03	-0.14	-0.15
Motor Rest	0.52	0.57	0.45	0.25
Sleep	0.63	0.60	0.38	0.22
Motor Spatial	0.51	0.55	0.27	0.17
Language	0.62	0.56	0.37	0.26
<b>TOTAL</b>	<b>0.80</b>	<b>0.80</b>	<b>0.44</b>	<b>0.31</b>
<b>NPT</b>	<b>0.65</b>	<b>0.67</b>	<b>0.27</b>	<b>0.18</b>
<b>NPL</b>	<b>0.69</b>	<b>0.67</b>	<b>0.45</b>	<b>0.32</b>

Table 4 - KCSS Internal Correlations (Spearman's rho)

	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10
Question 2	0.73									
Question 3	0.67	0.68								
Question 4	0.49	0.31	0.32							
Question 5	0.40	0.28	0.37	0.71						
Question 6	0.59	0.51	0.53	0.46	0.37					
Question 7	0.20	0.29	0.20	0.30	0.37	0.32				
Question 8	0.65	0.65	0.63	0.11	0.04	0.59	0.01			
Question 9	0.49	0.44	0.48	0.23	0.18	0.29	0.25	0.53		
Question 10	0.47	0.54	0.53	0.17	0.07	0.37	-0.02	0.76	0.46	
Total	0.83	0.8	0.8	0.59	0.54	0.75	0.43	0.74	0.63	0.65
Care	0.81	0.80	0.67	0.66	0.79	0.62	0.71	0.47	0.53	0.27
Family	0.47	0.48	0.42	0.45	0.38	0.41	0.46	0.94	0.90	0.47
Financial	0.27	0.32	0.18	0.17	0.25	0.13	0.12	0.48	0.52	
	Care	Family	Total							
Care			0.99							
Family	0.55		0.62							
Financial	0.27	0.55	0.39							

Table 5 - Internal Consistency

	Full Scale	Care Group	Family Group
Coefficient alpha (Cronbach)	$\alpha = 0.89$	$\alpha = 0.88$	$\alpha = 0.88$

Note: The Financial group consisting of a single question does not allow for  $\alpha$  calculation.

Table 6 - KCSS Subjective Level of Impairment

	Mild	Moderate	Severe
Score	< 16	16 - 24	> 24

## Profile:

The person filling out the form merely circles the number to the right of the question corresponding to the stress level associated with that item. By looking at the circles one can easily see a profile for each caregiver. See Figures 1 and 2.

## References:

- Kilik LA, & Hopkins RW. (2019) "The Relationship between Caregiver Stress and Behavioural Changes in Dementia." *OBM Geriatrics*, **3**(2):1-16  
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- Pitsikali, A., Galanakis, M., Varvogli, L., Darviri, C. (2015) Kingston Caregiver Stress Scale (KCSS) Greek Validation on Dementia Caregiver Sample. *Psychology*, **6**, 1180-1186.

Figure 1

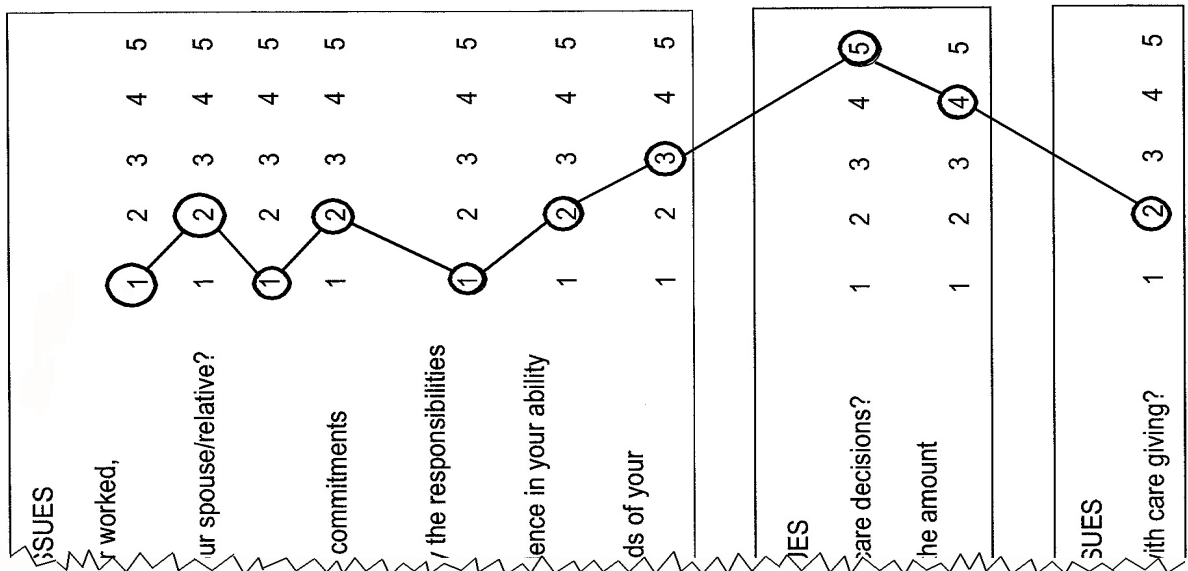
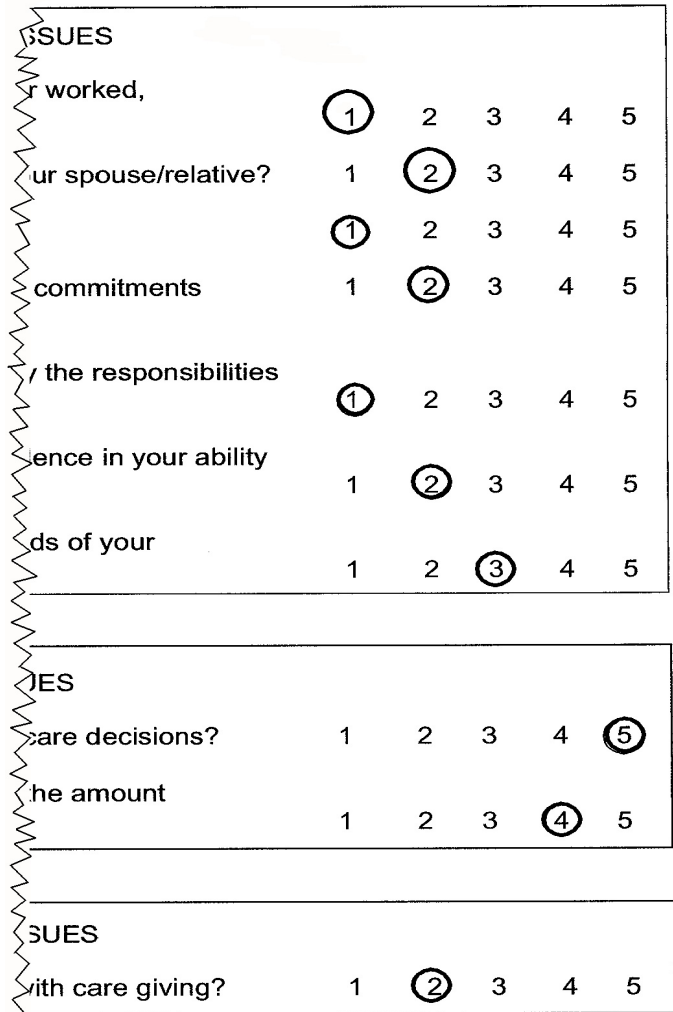


Figure 2



# Kingston Caregiver Stress Scale (KCSS)

Patient Name: \_\_\_\_\_ Case #: \_\_\_\_\_

Caregiver: \_\_\_\_\_ Relation to Patient \_\_\_\_\_ Date: \_\_\_\_\_

Lives in: Community \_\_\_ Long Term Care Facility \_\_\_ Other \_\_\_

Some people report feelings of stress surrounding certain aspects of care giving. To what extent, if any, do these apply to you in your role of care giving to your spouse or relative? Using a 5 point rating scale, where 1 equals no stress and 5 equals extreme stress, indicate the extent of the stress or frustration you feel surrounding the following issues.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Feeling NO Stress</b>	<b>Some Stress</b>	<b>Moderate Stress</b>	<b>A lot of Stress</b>	<b>Extreme Stress</b>
<b>(Coping fine,</b>				<b>(Feeling at “end of</b>
<b>no problems)</b>				<b>rope”, health at risk)</b>

CARE GIVING ISSUES					
TO WHAT EXTENT...					
1	Are you having feelings of being overwhelmed, over worked, and/or over burdened?	1	2	3	4 5
2	Has there been a change in your relationship with your spouse/relative?	1	2	3	4 5
3	Have you noticed any changes in your social life?	1	2	3	4 5
4	Are you having any conflicts with your previous daily commitments (work/volunteering)?	1	2	3	4 5
5	Do you have feelings of being confined or trapped by the responsibilities or demands of care giving?	1	2	3	4 5
6	Do you ever have feelings related to a lack of confidence in your ability to provide care?	1	2	3	4 5
7	Do you have concerns regarding the future care needs of your spouse/relative?	1	2	3	4 5

FAMILY ISSUES					
TO WHAT EXTENT...					
8	Are you having any conflicts within your family over care decisions?	1	2	3	4 5
9	Are you having any conflicts within your family over the amount of support you are receiving in providing care?	1	2	3	4 5

FINANCIAL ISSUES					
TO WHAT EXTENT...					
10	Are you having any financial difficulties associated with care giving?	1	2	3	4 5