

### Descriptive Statistics Example Problem

A counselor working with a group of caregivers of patients living with a terminal illness is interested in forming a support group to share experiences and therefore reduce the sense of isolation often associated with catastrophic illness. The counselor, working with hospital staff, administers a depression and anxiety inventory to each caregiver who has volunteered for the program. The counselor feels that knowing the levels of depression and anxiety within the group will help in the design of an effective intervention program. The scores obtained from the administration of the two inventories are given below.

Individual	Anxiety Score	Depression Score
1	22	16
2	12	8
3	68	33
4	10	6
5	5	5
6	53	24
7	44	18
8	37	17
9	0	2
10	21	14
11	64	31
12	33	17
13	55	30
14	18	13
15	3	3
16	4	4
17	11	7
18	13	9
19	7	5

■

## Descriptive Statistics Example Problem

### Example Reporting of Results

#### Results

Table 1 presents the mean, median, mode, minimum and maximum scores, and standard deviation for anxiety and depression scores administered to caregivers of terminally ill individuals. Comparison of the mean, median, and mode indicates the distributions for anxiety and depression are both somewhat positively skewed. The mean for anxiety and depression are both affected by a small number of high scores suggesting perhaps the median is a more reflective measure of central tendency. The standard deviation and range of values for both variables indicate a wide dispersion among scores of individuals.

A grouped interval frequency distribution is depicted in Figure 1 which identifies the number of individuals falling into the clinical categories of anxiety and depression as described in the assessment instruments.

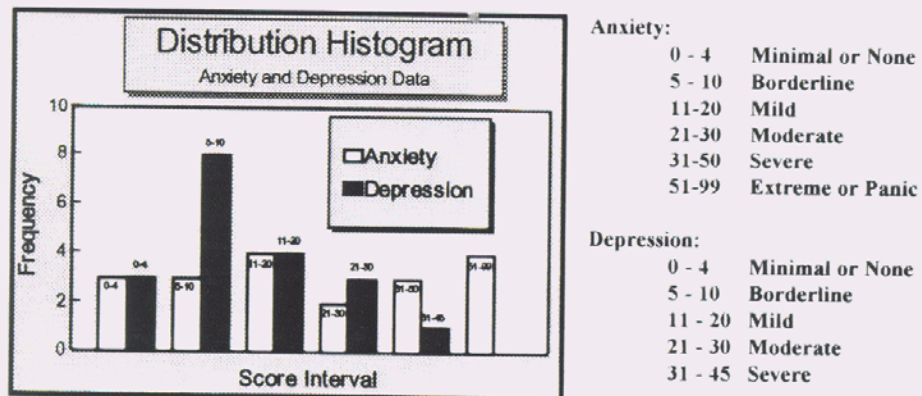
A Pearson's coefficient of correlation was calculated between the variables of anxiety and depression. The high positive correlation ( $r = .98$ ) indicates the greater an individual's level of depression, the greater the expected level of anxiety and visa versa. Figure 2 depicts a scatterplot of the correlation.

Table 1

Variable	Sample Size	Minimum Score	Maximum Score	Mean	Median	Mode	Standard Deviation
Anxiety	19	0.00	68.00	25.26	18.00	N/A*	21.99
Depression	19	2.00	33.00	13.79	13.00	5,17	9.85

\* Not Applicable

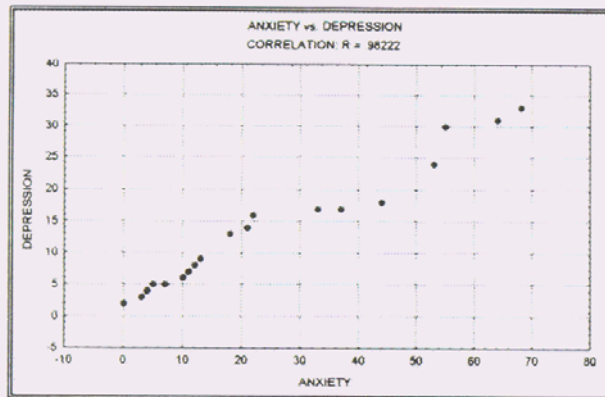
Figure 1



## Descriptive Statistics Example Problem

### Example Reporting of Results - Continued

Figure 2



### Discussion

Caregivers of terminally ill individuals in this study suffered from mild to moderate anxiety and mild depression on the average. Furthermore, there was a strong positive correlation between anxiety and depression. Caregivers in this study varied more in their measured levels of anxiety than in their levels of depression. These findings should help the counselors choose intervention strategies appropriate for the levels of anxiety and depression displayed by the caregivers of terminally ill patients.

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### Comment

The Results section should present the outcome of your statistical treatment of the collected data from a strictly technical viewpoint. Explanation of the meaning of the results related to the central purpose of the study is reserved for the Discussion section of results reporting.

### Note:

The histogram in the example results was produced using the Lotus 1-2-3™ product. The correlation scatterplot was produced using Statsoft's Statistica™ product.