Stress Reduction Intervention Study

Kagan, Kagan (Klein), and Watson (1995) conducted a three-year field study examining three types of a stress reduction intervention among a population of 373 employees in the emergency medical service (e.g., paramedics, emergency medical technicians, dispatchers, etc.) of a municipal fire department.

Participants were randomly allocated to participate in 1 of 3 psychoeducational interventions:

A) training to control physiological reactions through muscle relaxation training, mediation, and exercise
B) training to increase confidence and abilities to change others through assertiveness training, human relations training, hostage negotiation, and suicide prevention
C) interpersonal awareness training to increase self-awareness of cognitive and affective responses to events through insight therapy, affect therapy, and other stress management techniques.

The results of their study demonstrated reduction in stress measures such as depression scores, anxiety, job strain, and emotional exhaustion.

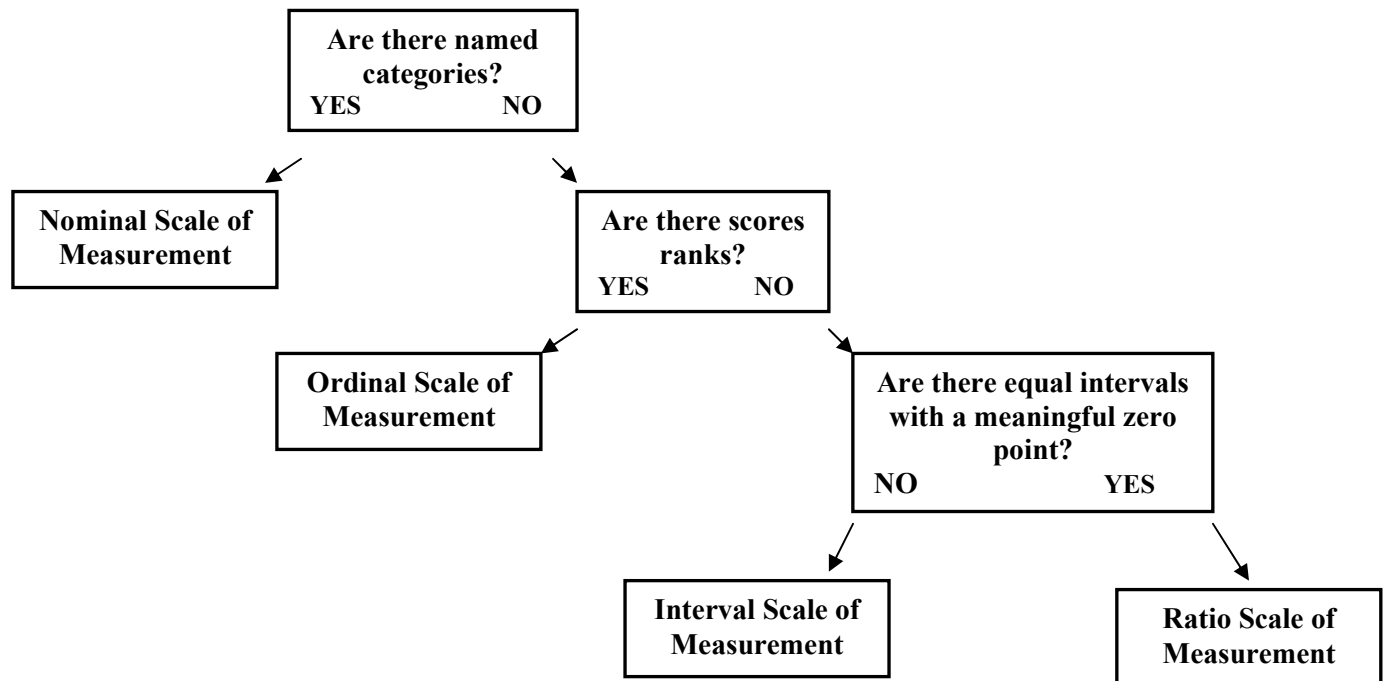Hypotheses:

    1. Null hypothesis

    2. Research hypothesis

Participants:

    Sample or Population?

Variables:

    1. Independent variable

    2. Dependent variable

Scales of Measurement

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┌─────────────────────┐
│  Are there named    │
│    categories?      │
│ YES          NO     │
└─────────────────────┘
   ↓              ↓
┌──────────────┐   ┌─────────────────┐
│ Nominal Scale│   │ Are there scores│
│ of           │   │    ranks?       │
│ Measurement  │   │ YES        NO   │
└──────────────┘   └─────────────────┘
        ↓                      ↓
   ┌──────────────┐   ┌──────────────────────┐
   │ Ordinal Scale│   │ Are there equal      │
   │ of           │   │ intervals with a     │
   │ Measurement  │   │ meaningful zero      │
   └──────────────┘   │ point?               │
                      │ NO            YES    │
                      └──────────────────────┘
                          ↓              ↓
                   ┌──────────────┐  ┌──────────────┐
                   │Interval Scale│  │ Ratio Scale  │
                   │ of           │  │ of           │
                   │ Measurement  │  │ Measurement  │
                   └──────────────┘  └──────────────┘
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SCALES OF MEASUREMENT

Identify the appropriate scale of measurement (nominal, ordinal, interval, ratio) for each of the following:

1. Academic classification (instructor, assistant professor, associate professor, full professor)
2. College major
3. College degrees (AA, BA, BS, MA, MS, PhD, etc)
4. Cost of your textbooks
5. Distance in inches between two people
6. Distance in meters between two points
7. Ethnic group membership
8. Job classification
9. Loudness of music
10. Medical status (critical, guarded, serious, satisfactory)
11. Number correct on an exam
12. Number of children in a family
13. Number of pages in a book
14. Phone number
15. Political party
16. Rank ordering of 13 people for depression proneness from most to least
17. Reaction time
18. Social security number
19. State of residence
20. Score on the Beck Anxiety Inventory
21. Stress measured on a 7-point scale
22. Student identification number
23. Zip code