

DIMENSIONS AND SCORING OF THE  
CURRENT SYMPTOM CHECKLIST  
FOR CHILDREN

By  
ANNETTE MILES  
Bachelor of Arts  
Central State University  
Edmond, Oklahoma  
1979

Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
MASTER OF SCIENCE  
July, 1986

Thesis  
1986  
M643d  
Cop. 2



DIMENSIONS AND SCORING OF THE  
CURRENT SYMPTOM CHECKLIST  
FOR CHILDREN

Thesis Approved:

*William E. Jaynes*

Thesis Adviser

*Bob Helm*

*Kenneth P. Searls*

*Norman N. Dunham*

Dean of Graduate College

## ACKNOWLEDGMENTS

This thesis is the result of a very long process. At long last, I have the opportunity to thank my committee members Ken D. Sandvold, Ph.D., and Bob Helm, Ph.D., for their kind assistance in this project. I would also like to thank a former committee member, Donald K. Fromme, Ph.D., whose friendship is greatly valued.

A special expression of thanks goes to my committee adviser William E. Jaynes, Ph.D. Dr. Jaynes provided assistance beyond my expectations. His kindness, patience and wisdom are greatly appreciated.

I would also like to thank C. Eugene Walker, Ph.D., the University of Oklahoma Health Sciences Center, Oklahoma City, for allowing me to undertake this project which he originated. His assistance in data collection is appreciated as well.

Finally, I would like to express my thanks to my family, friends and helpmates. First, thanks goes to Richard E. Sternlof, Ph.D., without whom this thesis still would not be completed. His encouragement and practical assistance were invaluable. To my friends, Marji, Alyssa, Anne, Marilyn and Joe, thanks for your support, and especially, for your friendship.

Last, but certainly not least, I thank my family -- Barbara, Kay, Jack, Michael, T., and all my nieces, nephews, aunts and in-laws -- for always being there to provide support, encouragement and a good time. There is no way I can express how much I love and appreciate

my mother, Wanda Miles. She is an extraordinarily caring and giving person. This degree and any other achievements I may attain are as much hers as mine.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION . . . . .	1
II. METHOD . . . . .	9
Subjects . . . . .	9
Instruments . . . . .	9
Procedure . . . . .	11
Data Analysis . . . . .	12
III. RESULTS . . . . .	14
Group 1 - Pediatric Psychology Clinic . . . . .	14
Group 2 - Outpatient Pediatric (Medical) Clinic . . . . .	21
Combined Group . . . . .	23
IV. DISCUSSION . . . . .	27
REFERENCES . . . . .	37
APPENDIXES . . . . .	41
APPENDIX A - CURRENT SYMPTOM CHECKLIST FOR CHILDREN . . . . .	42
APPENDIX B - DEMOGRAPHIC QUESTIONNAIRE . . . . .	47
APPENDIX C - SCORING KEY . . . . .	49
APPENDIX D - NORMATIVE DATA . . . . .	51

## LIST OF TABLES

Table		Page
I.	Items with Frequencies below 20% for Group 1, Group 2 and the Combined Group . . . . .	15
II.	Component Loadings for the Six-component Solution for Group 1 . . . . .	19
III.	Component Loadings for the Five-component Solution for Group 2 . . . . .	22
IV.	Component Loadings for the Six-component Solution for Combined Group . . . . .	24
V.	A Comparison of Components for Each Group . . . . .	31

## LIST OF FIGURES

Figure		Page
1.	Scree Plot of Eigenvalues . . . . .	18

## CHAPTER I

### INTRODUCTION

When a clinician is presented with a new patient, s/he has the task of deciding whether or not this patient is in need of treatment, what the severity of the problem is, what problem needs to be addressed first, and what the appropriate treatment is to be. Thus, the initial assessment of a child psychiatric patient is a critical, and sometimes, complex issue. The first decision for the clinician is to determine the appropriate method of assessment.

The intake interview has long been used as the major source of assessment. While the intake interview is essential and will never be replaced, its effectiveness as the sole source of information is debatable. Novick, Rosenfeld, Bloch, and Dawson (1966) found that the intake interview typically elicited only 17% of the total symptoms of child psychiatric patients. As Miller (1967a) has suggested, an information deficit of this magnitude can severely distort a child's symptom picture, and adverse consequences may arise if a diagnosis and treatment plan are formulated based on this abbreviated information.

Therefore, there exists a need for a method of supplementing the intake interview. Several researchers have reported on the value of using symptom checklists for this purpose (Miller, 1967a; Novick, et al., 1966; Wimberger & Gregory, 1968; Glidewell, Mensh & Gildea, 1957; Wilson & Prentice-Dunn, 1981). Novick et al. (1966) reported that with the Deviant Behavior Inventory, mothers reported up to eight times



as much information as was obtained by the intake interview alone. Similarly, Wimberger and Gregory (1968) found that parents who completed the Washington Symptom Checklist reported a wider variety of behaviors and were also more definite in their reporting. This is attributed to the parents having to make definite judgments about the applicability and severity of each symptom as given on the checklist.

Checklists can direct the clinician's attention to specific problem areas and can serve to rule out unimportant information (Goldman, Stein & Guerry, 1983; Wilson et al., 1981). They are easy to administer and score, and provide easily quantifiable data. Thus, they are economical in both cost and clinician's time. In addition, checklists can provide information from important informants (e.g., teachers) who are not available at the time of evaluation (Goldman et al., 1983).

Other uses for checklists, as reviewed by Novick, et al. (1966), include: measures of personality change, epidemiological surveys, investigations of parent-child interactions and studies relating childhood pathology with other internal or external variables such as social class, juvenile delinquency, school adjustment, sex and age, and degree of sickness.

Symptom checklists, behavior checklists and rating scales are used interchangeably to describe behaviorally-based measures. Items typically describe problem behaviors, but some include pro-social or competence items. Respondents are usually asked to rate recent observations of the child's behavior. Clinicians are more concerned with current problems, so little, if any, emphasis is placed on past behaviors when constructing checklists (Goldman, et al., 1983). Checklists are primarily of two types. There are those that require a binary decision, that is, the presence or absence of a symptom (Louisville

Behavior Checklist [Miller, 1967a, 1967b]; Missouri Children's Behavior Checklist [Sines, Pauker, Sines & Owen, 1969]). Others use a Likert-type scale to rate the degree to which a symptom is present or the severity of the symptom (Child Behavior Checklist [Achenbach, 1978a; Achenbach & Edelbrock, 1981]; Behavior Problem Checklist [Peterson, 1961]; Washington Symptom Checklist [Wimberger & Gregory, 1968]).

Recent research has focused on factor analytic studies using checklists as the basis for empirical classification of syndromes in child psychopathology (Achenbach, 1966; 1978a, 1978b; Achenbach & Edelbrock, 1981; Peterson, 1961; Miller, 1967a, 1967b). One of the first checklists developed in this manner is the Behavior Problem Checklist (Peterson, 1961). It contains 58 problems which are rated on a three-point scale of "no problem, mild, or severe". The subject population consisted of 831 children of both sexes, ages 6-12. A factor analysis followed by varimax rotation resulted in two factors. The symptoms involved in Factor 1, Conduct Problem, imply a tendency to express impulses against society. Factor 2, Personality Problem, involves a variety of symptoms suggesting low self-esteem, social withdrawal and dysphoric mood. The results of this study found that boys exhibited more conduct problems than girls across all levels. Kindergarten boys showed more personality problems than girls, but the situation reversed at age 11-12, where girls exhibited more personality problems than boys. While the Behavior Problem Checklist was an important early attempt at classifying children's problems, more recent studies have yielded more comprehensive and useful instruments.

In 1967, Miller reported on the development of the Louisville Behavior Checklist (LBCL). The LBCL contains 163 items of deviant and pro-social behaviors to which the respondent answers "yes" or "no".

The checklist was given to parents of 263 male children between the ages of 6-12 at the Louisville Child Guidance Clinic. The checklist items were intercorrelated and then factor analyzed with varimax rotation to obtain eight narrow, specific factors. Intercorrelations of the approximate scores for these eight factors were factor analyzed with varimax rotation to find three broad, general factors. Specific factors 1-3 are associated with Aggression (AG), which is a general factor. Factor 1 was labeled Infantile Aggression (Ia) and describes "ego-centric, emotionally demanding, and inter-personally belligerent behavior ... reminiscent of early infancy when the child has few social mechanisms other than 'temper' to alert others to his needs" (Miller, 1967a, p. 888, 890). Factor 2 was labeled Hyperactivity (Ha) and contains behaviors relating to impulsivity and constant action. Factor 3, Anti-social Behavior (As) described illegal and destructive behaviors to property which may result in injury to self or others.

The broad, general factor, Inhibition (IN), overlaps specific factors 4-6. Factor 4 was labeled Social Withdrawal (Sw) and refers to a reluctance to interact with others. Children exhibiting these symptoms show a preference for social isolation and uninvolvedness. Factor 5, Anxiety (An), describes subjective feelings of vulnerability and a tendency to somaticize. These children complain of being unloved and picked on. Items relating to school phobias also load on this factor. Factor 6, Sleep Disturbance (Sd), includes nightmares, refusing to sleep alone, and being afraid at night. Factors 5 and 6 seem to refer to two different kinds of anxiety, one relating to daytime and one to night.

Factors 7 and 8 are associated with the broad, general factor Learning Disability (LD). Factor 7 is labeled Academic Disability (Ad)

and is comprised of items relating to specific academic deficits (i.e., reading, writing, arithmetic) and habits associated with learning failures (e.g., poor study habits, distractibility). Factor 8 is labeled Immaturity (Im) and includes items reflecting both social and physical immaturity (e.g., babyish, whining, clumsy, slow physical growth).

F-tests for age, race, and observer (person completing the checklist) were conducted for each factor. Race and observer revealed no differences. Age was significant on Academic Disabilities but "not until age 8 did children reach the mean for the population as a whole on Ad scale" (Miller, 1967a, p. 891).

The Child Behavior Checklist (CBCL) is one of the more researched scales (Achenbach, 1966, 1978a; Achenbach & Edelbrock, 1981). In the original study (Achenbach, 1966), symptoms from the case histories of 600 male and female child psychiatric patients were intercorrelated and then component analyzed with oblique rotation. Intercorrelations of the oblique components were also analyzed, yielding an hierarchical solution with two broad, general components and eight narrow, specific components. One broad, general component was bipolar. It was labeled Internalizing versus Externalizing. Internalizing describes problems within the self and Externalizing describes conflicts with the environment. The specific components resembled traditional psychiatric diagnoses. In a subsequent study (Achenbach, 1978a), the CBCL was standardized for boys ages 6-11. Two successive component analyses of first the item intercorrelations, and then the intercorrelations of approximate component scores yielded an hierarchical solution with two broad, general components, Internalizing and Externalizing and nine narrow, specific components. The specific components in the same items as the

Internalizing component were labeled Schizoid, Depressed, Uncommunicative, Obsessive-Compulsive and Somatic Complaints. Schizoid involves items concerning hallucinations, fears, anxiety, and shyness. Depressed relates to items of worthlessness, guilt, perfectionism, dysphoria, and some paranoid ideations. Uncommunicative related to items reflecting shyness, confusion, stubbornness, and an unwillingness to talk. Obsessive-compulsive is found in items directly associated with obsessions and compulsions, such as hoarding, plus anxiety and strange behaviors. Additionally, items relating to sleep disturbances (i.e., walks/talks in sleep, nightmares, insomnia) contribute to this component. Somatic Complaints involves pains, headaches, stomach problems and dizziness. The specific components linked with the Externalizing component were labeled Hyperactive, Aggressive and Delinquent. Hyperactive is comprised of items relating to poor concentration, impulsivity, hyperactivity, clumsiness and confusion. Additional items relate to poor schoolwork, daydreaming and immaturity. Aggressive resides in items of disobedience, fighting, arguing and temper tantrums. These items describe behaviors which are considered aggressive but are not antisocial. Antisocial activities, such as stealing, destroying property, truancy, and firesetting, are found in the component labeled Delinquent. A specific component in items related to both general components was called Social Withdrawal and involves items of poor peer relations, a preference for being alone, being teased, and feeling persecuted.

Similar to findings of Miller (1967a), items referring to enuresis, encopresis, and thumbsucking achieved low frequencies of endorsement, and did not load significantly on any component.

The final version of the CBCL consists of 188 behavior problem items and 20 social competence items. The questions are answered using "0" for not true, "1" for somewhat or sometimes true, and "2" for very true or often true.

In 1981, Achenbach and Edelbrock used the CBCL to compare clinically referred children to non-referred children. They also studied differences related to demographic variables (i.e., age, gender, socioeconomic status, and race). The primary finding was that referral status (clinical versus non-clinical) accounted for more variance in total behavior problems and social competence scores than any single demographic variable. Other findings include a general tendency for behavior problems to decline with age, and more problems and fewer competencies were reported by parents of lower socioeconomic status children than parents of upper socioeconomic status children. Gender and race showed few differences.

As has been illustrated, several researchers have relied on dimensional analysis as a method of organizing children's symptoms. Achenbach (1978a) argues that using this method of analysis preserves more information about a child's symptomatic behaviors than does classification into mutually exclusive categories according to individual syndromes. Miller (1967a) agrees that "factor analysis appears to be a satisfactory method for constructing a nosology of childhood psychopathology" (p. 896).

The Current Symptom Checklist for Children (CSCC) was developed to serve as an interview guide during the initial diagnostic assessment of child therapy cases. The developer found that some of the existing checklists contained too few items and lacked sufficient depth to be of value to clinicians. Others were overinclusive and time-consuming.

Additionally, some items of psychopathology deemed to be important were not included on previous checklists. Thus, the intent in developing the Current Symptom Checklist for Children was to create an instrument which would elicit sufficient information regarding symptoms and which would contain items of clinical relevance for the target population. Further, categorizing items into meaningful scales could lead the interviewer into investigating related symptoms and could afford the interviewer a "shorthand" method for referring to the patient.

Because this is a new instrument, there exists a need to investigate some of its psychometric properties. This study represents the first of such investigations and includes an analysis of the frequency of endorsement of each item, correlations among items, and component analyses. Such analyses are consistent with the development of similar instruments (Peterson, 1961; Achenbach, 1966, 1978a; Miller, 1967a, 1967b). Future studies will examine the reliability and validity of the checklist. Due to the exploratory nature of this study, no a priori predictions were advanced. The component dimensions of the Current Symptom Checklist for Children will be discussed and compared to those of other prominent checklists.

## CHAPTER II

### METHOD

#### Subjects

Parents of children referred to the Outpatient Pediatric Psychology Clinic, University of Oklahoma Medical School and Oklahoma Children's Memorial Hospital were asked to complete the Current Symptom Checklist for Children and served as the experimental group. Subjects for the control group were recruited from the Outpatient Pediatric Clinic (a medical clinic), Oklahoma Children's Memorial Hospital. Both clinics are located in an urban area but serve surrounding communities as well. A total of 166 acceptable checklists were obtained from the experimental group and 177 from the control group. A checklist was discarded if essential information such as age or gender was missing, if the child was beyond the age boundaries, or if more than 20% of the questions were unanswered.

Children of both genders and between the ages of 4-12 were included in the study. Of the total 343 subjects, 204 were male and 139 were female.

#### Instruments

Items for the checklist were derived from numerous sources. First, the literature was reviewed on symptoms for children seen in clinics similar to the Pediatric Psychology Clinic (Mesibov, Schroder,



& Wesson, 1977; Monnelly, Ianzito, & Stewart, 1973; Walker, 1979).

Second, items were obtained from a review of the Pediatric Psychology Clinic charts for the past three years. Third, several published and unpublished checklists which have been employed in the University of Oklahoma Medical Center and other medical centers throughout the country were examined. Finally, the expertise of the clinical staff of the Pediatric Psychology Clinic was utilized. From these sources, a large pool of potential items was generated. These were then classified and sorted into categories. Items were cross-checked to eliminate redundancy. Items were eliminated if there was consensual agreement among the Pediatric Psychology Clinic staff that certain symptoms occurred so infrequently that it was felt unnecessary to include them.

The final version of the Current Symptom Checklist for Children contains 71 items grouped a priori into four categories: personal-social (e.g., Item 1: My child continually seeks attention.), behavioral (e.g., Item 46: My child tells tall tales or lies.), school (e.g., Item 57: My child voices an intense dislike of school.), and physical (i.e., Item 62: My child is overweight or underweight.). At the end of the checklist, parents were given the opportunity to list any problems or concerns that were not addressed by checklist items.

Novick et al. (1966) found that items were misinterpreted if they required a high reading level or judgment of a highly abstract or evaluative nature. Therefore, the 71 items describe behaviors in short, easy-to-read, declarative sentences.

All items are answered either "yes" or "no". Thus, there is a strong response bias built into the checklist. That is, all items are stated in such a way that the presence of the symptom requires a "yes" response. The developers of this checklist were well aware of the bias

involved in this format, but it was decided the over-reporting of symptoms was preferred to under-reporting as the intent of the questionnaire was to aid an interviewer in uncovering all current symptoms of a patient. Appendix A provides a copy of the Current Symptom Checklist for Children.

### Procedure

Parents of child clients entering the Outpatient Pediatric Psychology Clinic and the Outpatient Pediatric Clinic whose children were between the ages of 4-12 were asked to complete the Current Symptom Checklist for Children. Participation in this study was voluntary, and parents were informed that all information was confidential and anonymous. All participants signed consent forms. In some instances, other relatives or caretakers completed the checklist. Mothers accounted for 91% of the respondents and fathers added another 7%, accounting for a total of 98% of all respondents. Grandparents, and occasionally, step-parents, were also respondents. For brevity, all respondents are referred to as "parents".

Parents were instructed to read each item and decide whether the statement was true of their child at the present time and then circle either "yes" or "no". Parents who had questions were instructed to ask the receptionist or intake worker for clarification. No time constraints were placed upon the parents and most completed the checklist in about ten minutes.

The parent completing the checklist was asked to give the child's age and sex and whether the checklist was completed by the mother, father, or some other person. If other, they were asked to specify. Demographic information was collected from the Outpatient Pediatric

Clinic subjects. This information included: marital status of parents; person(s) with whom the child was living; occupation, income, and educational level of parents; the child's race; and whether or not the child had been seen previously by a counselor, psychologist or psychiatrist for emotional problems. Appendix B contains a copy of the demographic questionnaire. The Outpatient Pediatric Psychology staff, as a matter of routine, completed a Patient Information sheet which included some demographic information such as place of residence, income and race. As part of the hospital chart, however, this information was considered confidential and not available for this study.

#### Data Analysis

These data were treated as three groups for the purpose of analysis. The group of subjects from the Pediatric Psychology Clinic is referred to as Group 1, subjects from the Pediatric Clinic as Group 2, and Group 1 plus Group 2 as the Combined Group. Statistical analysis of the data began by obtaining frequencies for the 71 checklist items in Group 1, Group 2, and the Combined Group. These frequencies were used to determine which items would be retained for correlational and component analysis in each group. Several component analysis solutions within each group were examined to find dimensions which were both independent and interpretable. In solutions with three components, it appeared that several uninterpretable dimensions were combined with interpretable dimensions. In solutions with nine components, several components were uninterpretable. The five- and six-component solutions represented the best combination of independence and interpretability. For each group, the five- or six-component solutions involved only one component which was uninterpretable. Also, these three solutions

produced interpretable components with the greatest comparability across groups.

Extensions to obtain loadings for sex, age and demographic variables were completed for each group. Finally, analyses of variance were used to investigate group differences in the component scores for the interpretable dimensions in the Combined Group.

## CHAPTER III

### RESULTS

As indicated previously, the data were divided into three groups for the purpose of analysis. Each group is discussed separately.

#### Group 1 - Pediatric Psychology Clinic

The first step in the data analysis was to obtain frequencies for each of the 71 questions in the Current Symptom Checklist for Children. The frequency criterion for usage of an item was 20% or more in the least frequent response category. Items obtaining frequencies below 20% were dropped from further analyses because of the limitations they impose on item intercorrelations, as indicated by Nunnally (1970). In Group 1, eight items were eliminated, leaving 63 for correlational and component analysis. Table I gives a list of items that were deleted and their frequencies.

The 63 X 63 item intercorrelation matrix for Group 1 was subjected to a principal-component analysis in which a scree plot of eigenvalues was obtained. Figure 1 shows this scree plot. It suggested consideration of solutions for nine, six and three components. For each solution, principal component extraction was followed by varimax rotation. The solution for six components was the most interpretable. The loadings for this solution are given in Table II. In this solution, items with loadings of .40 or more suggested descriptive verbal labels for five components; the sixth component was uninterpretable. The

TABLE I  
ITEMS WITH FREQUENCIES BELOW 20%  
FOR GROUP 1, GROUP 2 AND THE  
COMBINED GROUP

Item No.	Content	Group 1		Combined Group		Group 2	
		Yes	No	Yes	No	Yes	No
6.	My child is a thumb or finger sucker.	12.12	87.88	12.50	87.50	11.86	88.14
8.	My child often rocks back and forth.	9.09	90.91	8.93	91.07	6.78	93.22
37.	My child often expresses strong dislike for home and family.	14.11	85.89	13.86	86.14	5.14	94.86
41.	My child often says he (she) wishes he (she) were dead or away from it all.	16.46	83.54	16.17	83.83	9.20	90.80
42.	My child has been physically or sexually abused.	15.38	84.62	15.09	84.91	2.91	97.09
50.	My child does sexual things he (she) shouldn't.	9.70	90.30	9.58	90.42	1.15	98.85
57.	My child voices an intense dislike of school.	17.72	82.28	17.39	82.61	7.06	92.94
67.	My child has a chronic illness or handicap.	8.59	91.41	9.04	90.96	7.47	92.53
9.	My child shakes or trembles sometimes.			15.00	85.00	7.96	92.04

TABLE I (CONTINUED)

16. My child seems sad.	18.31	81.19	7.96	92.04
30. My child often has trouble making friends.	16.18	83.82	5.68	94.32
48. My child has attempted to seriously harm a person or animal.	11.94	88.06	2.89	97.11
51. My child seems to welcome punishment.	14.72	85.28	8.09	91.91
64. My child frequently stares blankly into space and is unaware of his (her) surroundings when doing so.	18.02	81.98	12.64	87.36
69. My child sometimes has accidental bowel movements in his (her) clothing.	17.11	82.89	7.43	92.57
10. My child has many or unusual fears.			11.30	88.70
17. My child has sleep problems.			11.86	88.14
19. My child walks or talks in his (her) sleep.			17.71	82.29
20. My child gets confused easily.			18.86	81.14
28. My child avoids competition.			15.91	84.09
31. My child often seems to have little self-confidence.			17.04	82.96
32. My child cannot get along with my husband (wife).			16.67	83.33
44. My child is a discipline problem at home.			16.09	83.91
45. My child is a discipline problem at school.			10.46	89.54

TABLE I (CONTINUED)

53. My child steals things sometimes.	13.71	86.29
59. The teachers complain about my child.	8.38	91.62
70. My child has eating problems.	17.92	82.08
71. My child wets the bed.	13.95	86.05

---



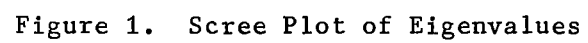


TABLE II  
COMPONENT LOADINGS FOR THE  
SIX-COMPONENT SOLUTION  
FOR GROUP 1

Item No.	Components					
	T	LD	A	WS	X	FP
Q1	0.45724	0.04120	0.23633	0.25836	0.06127	0.06325
Q2	0.59031	0.11471	0.05825	0.23203	0.14109	-0.05972
Q3	0.63826	0.15568	0.21655	0.18473	-0.05444	0.12841
Q4	0.36140	0.34868	0.05403	0.00575	0.13702	0.13713
Q5	0.12739	0.11347	-0.00120	0.27259	-0.22678	0.27385
Q7	0.17888	0.04449	0.00352	0.52684	0.24448	0.05710
Q9	0.03197	0.22833	0.20867	0.35673	0.01898	0.09409
Q10	0.07184	0.21426	0.10516	0.45774	-0.09665	-0.06887
Q11	0.57321	0.10027	0.27039	0.17233	0.20665	0.13659
Q12	0.47494	0.00831	0.13140	0.23558	0.24514	-0.09429
Q13	0.46807	0.21847	0.11720	-0.00818	-0.05359	-0.06801
Q14	0.63996	0.10014	0.07262	0.05226	0.02575	0.03332
Q15	0.50752	0.04720	0.08960	-0.00232	0.08359	0.24732
Q16	0.16580	-0.01689	0.27018	0.48857	0.22196	0.14437
Q17	0.32749	0.05118	0.07622	0.41597	-0.05029	0.06350
Q18	0.16010	-0.13224	0.00800	0.60064	-0.15711	-0.00446
Q19	0.35740	-0.06151	-0.18883	0.40546	-0.07214	0.05822
Q20	0.12244	0.62271	0.11372	0.28640	-0.15770	-0.14127
Q21	-0.00894	0.58387	0.12005	0.22092	0.09188	-0.02677
Q22	0.28975	0.61449	0.16786	0.12432	0.18397	-0.00175
Q23	0.22613	0.00062	0.21626	0.44586	0.25759	0.25638
Q24	0.10440	0.12503	0.20702	0.35216	0.47230	-0.03652
Q25	0.37019	-0.06146	0.40250	0.00357	0.30986	0.07562
Q26	-0.27676	0.19121	-0.20354	0.19386	0.00744	0.25424
Q27	0.00517	-0.04851	-0.04097	0.44285	0.17038	0.41702
Q28	-0.11024	0.34212	0.09858	0.23844	0.34883	0.11001
Q29	0.39395	0.08478	0.32501	0.15726	0.28613	0.29595
Q30	0.08733	0.23313	0.37889	0.16458	0.33447	-0.02606
Q31	-0.06883	0.33031	0.07776	0.43391	0.42009	-0.00532
Q32	0.22301	-0.00557	-0.03273	0.12598	0.49558	0.02293
Q33	0.15611	0.07105	-0.01817	0.09229	0.12228	0.71263
Q34	0.10546	0.00114	0.01848	-0.06816	0.02716	0.66749
Q35	0.01804	0.09958	-0.02260	0.47533	0.08518	-0.03212
Q36	0.13160	0.20364	0.15331	-0.03467	0.50053	0.24356
Q38	0.01757	-0.04373	0.05277	0.01576	0.01357	0.58019
Q39	0.19265	0.32922	0.32273	0.20335	-0.01334	-0.05351
Q40	0.28291	0.30697	0.32135	0.05337	0.12737	-0.03963
Q43	0.06350	0.28892	0.26127	0.11434	-0.12011	-0.04203
Q44	0.56267	0.19472	0.42440	-0.06546	-0.01632	0.26403
Q45	0.22724	0.28613	0.43857	-0.23273	0.18111	0.02348
Q46	0.00279	-0.00158	0.61601	0.03419	0.09610	0.12931
Q47	0.55338	0.12704	0.15732	0.02564	-0.21278	0.32330
Q48	0.24103	0.15334	0.48043	0.13273	-0.03979	0.02294
Q49	0.25754	-0.11399	0.46682	0.16459	0.09048	0.18010
Q51	0.28450	-0.03179	-0.31176	0.08326	0.10607	0.11864
Q52	0.26966	0.22474	0.47335	-0.02270	0.28517	0.11451
Q53	0.05193	0.06665	0.58027	0.09203	-0.01555	-0.06393
Q54	0.28713	0.10682	0.53207	-0.02644	-0.04264	0.03592
Q55	-0.01521	0.61602	-0.16890	-0.03567	0.09441	0.11274
Q56	0.08958	0.81829	-0.07701	-0.02421	-0.06702	-0.04161
Q58	0.07355	0.72656	0.01352	0.10124	0.10796	-0.06064

TABLE II (CONTINUED)

Q59	0.13371	0.50232	0.27064	-0.07207	0.05660	0.18799
Q60	-0.17640	-0.19296	0.12622	0.10398	0.21466	0.18401
Q61	-0.12478	0.02676	0.05077	0.51882	0.08517	-0.20302
Q62	0.00412	-0.11437	-0.46392	-0.04378	0.27764	0.15560
Q63	0.00528	0.08212	-0.32411	0.08762	0.15014	-0.00813
Q64	0.02127	0.33038	-0.03763	0.43194	-0.17959	0.02247
Q65	0.11054	0.50468	0.06855	-0.03104	-0.07084	0.05466
Q66	0.15850	0.04296	-0.25946	-0.01509	0.42475	-0.08137
Q68	0.15321	0.00577	-0.21271	0.41367	0.28483	0.18617
Q69	-0.35699	-0.00880	0.10669	0.00186	-0.14457	0.18236
Q70	0.02730	0.21992	0.03023	0.23016	-0.40062	-0.00654
Q71	-0.00343	0.02008	0.20439	-0.11535	-0.32427	0.37417

T = Tension

LD = Learning Disabilities

A = Aggression

WS = Worry and Sleep Problems

X = Uninterpretable

FP = Family Problems

components were labeled as follows: Component 1, Tension; Component 2, Learning Disabilities; Component 3, Aggression; Component 4, Worry and Sleep Problems; Component 5, Family Problems. The number of items with loadings greater than .40 were 10 for Component 1, eight for Component 2, nine for Component 3, 13 for Component 4; and three for Component 5. Appendix A and Table II provide the content of each item and the component loadings.

The six-component solution for the 63 items in Group 1 was extended to obtain loadings for sex and age. Sex had a moderately large loading (.194) on Component 2, Learning Disabilities. This loading indicated that males tended to score higher on this component. Age had a moderately large loading (.274) on Component 4, Worry and Sleep Problems. This loading indicated that older children tended to score higher on this component.

## Group 2 - Outpatient Pediatric (medical) Clinic

Frequencies for the 71 questions were also obtained for Group 2. The criterion for eliminating items in this group was the same as that employed in Group 1. The eight items which were dropped from Group 1 also failed to reach the criterion in Group 2. In addition, another 20 items were eliminated from this group. Table I indicates the items that were deleted. Forty-three items were retained for correlational and component analysis in Group 2.

The data for Group 2 suggested component analyses for six, five, four and three component solutions. For each solution, principal component extraction was followed by varimax rotation. The solution for five components was considered to be the most interpretable. The loadings for this solution are given in Table III. Items with loadings of .40 or more suggested descriptive labels for four components and one was considered uninterpretable. The components were labeled as follows: Component 1, Tension and Aggression; Component 2, Learning Disabilities; Component 3, Family Problems; and Component 4, Taking Medication. The number of items with loadings greater than .40 were 12 for Component 1, five for Component 2, six for Component 3, and four for Component 4. Appendix A and Table III show the content of each item and the component loadings.

For the 43 items retained in Group 2, the five-component solution was extended to obtain loadings for sex, age and eight demographic variables. The demographic variables are: marital status of parents; person(s) with whom the child was living; occupation, income, and educational level of parents; the child's race; and whether or not the child had been seen previously by a counselor, psychologist or

TABLE III  
COMPONENT LOADINGS FOR THE  
FIVE-COMPONENT SOLUTION  
FOR GROUP 2

Item No.	Components				
	TA	LD	FP	TM	X
Q1	0.44364	0.19247	0.10434	0.28533	0.24165
Q2	0.30615	0.11431	0.11418	0.22465	0.25667
Q3	0.57723	0.27874	0.04509	0.00757	-0.01902
Q4	0.15485	0.31538	0.12422	0.22930	-0.00697
Q5	0.00490	0.03186	0.39488	0.31884	0.38215
Q7	0.18406	0.05871	0.27600	0.33627	0.04809
Q11	0.64557	0.13211	0.18750	0.05165	0.10239
Q12	0.37457	0.28623	0.25451	0.11791	0.20878
Q13	0.22468	0.17720	0.17125	0.17681	0.15655
Q14	0.43765	0.15000	-0.04793	-0.09446	-0.00498
Q15	0.58406	0.01702	-0.02439	-0.13905	0.28558
Q18	0.00328	0.04368	0.22361	0.35460	-0.05463
Q21	0.12084	0.62994	0.06606	0.10489	0.01383
Q22	0.32381	0.56200	-0.07706	-0.13094	-0.05485
Q23	0.52762	-0.07565	0.21798	0.31514	-0.00627
Q24	0.18027	0.18350	0.03638	0.61605	0.03416
Q25	0.65869	0.09264	0.16060	-0.05903	0.07163
Q26	-0.12780	-0.08212	-0.02852	-0.00629	0.60406
Q27	0.01821	0.13530	0.47129	0.33700	0.27052
Q29	0.42870	0.20253	0.08477	0.01713	-0.07829
Q33	0.31020	0.15133	0.56191	0.01820	-0.00478
Q34	0.30446	0.16009	0.51290	0.04588	-0.08087
Q35	0.08299	-0.03476	0.56298	-0.06057	0.04692
Q36	0.15855	-0.01169	-0.00295	0.00201	0.56382
Q38	0.09238	0.03154	0.62466	0.01082	-0.08019
Q39	0.18732	0.19284	0.24159	0.05264	0.31890
Q40	0.37806	0.38940	0.10974	0.31179	0.16495
Q43	0.27611	0.26675	0.06018	-0.03650	0.13715
Q46	0.49896	0.10099	0.18119	0.25771	-0.06854
Q47	0.59810	0.06754	-0.04792	-0.08131	0.33321
Q49	0.58365	-0.01552	0.13863	0.07281	-0.11196
Q52	0.69289	-0.05425	0.06630	-0.05371	-0.09675
Q54	0.45700	-0.00216	-0.04498	0.10616	0.43217
Q55	0.00601	0.55662	0.00004	-0.07469	-0.08306
Q56	0.08509	0.73665	-0.02623	-0.11350	0.06343
Q58	0.04903	0.67838	0.15119	0.04587	0.17145
Q60	-0.00181	0.10015	0.11550	0.07033	0.65230
Q61	-0.05599	0.15156	0.30676	-0.11110	0.20113
Q62	0.07399	0.16956	0.13035	-0.55606	-0.07119
Q63	0.17159	0.18306	0.13496	-0.46157	-0.13793
Q65	0.03358	0.28530	-0.00650	-0.40786	0.27653
Q66	0.06077	-0.04926	0.42087	-0.40852	-0.04675
Q68	0.01890	-0.05901	-0.49052	0.08540	0.09678

TA = Tension and Aggression  
LD = Learning Disabilities  
FP = Family Problems

TM = Taking Medication  
X = Uninterpretable

psychiatrist for emotional problems. Sex had a moderately large loading (.206) on Component 1, Tension and Aggression, indicating that males tended to score higher on this component. There was another moderately large loading (.215) for sex on Component 3, Family Problems. This loading revealed that females tended to score higher on this component. On Component 2, Learning Disabilities, age had a moderately large loading (.214), showing that older children tended to score higher on this component. None of the demographic variables had large loadings on the four interpretable components.

#### Combined Group

Frequencies for the 71 questions were obtained for the Combined Group (Group 1 plus Group 2). A total of 15 items were deleted from this group by use of the criterion previously discussed. Eight of the items eliminated from this group also were dropped from Groups 1 and 2 (i.e., the first eight items listed in Table I were eliminated from Groups 1, 2 and the Combined Group). The seven additional items that were discarded from the Combined Group were also discarded from Group 2. Table I gives a list of items that were eliminated and their frequencies.

With the remaining 56 items in the Combined Group, component analyses for six, five and four component solutions were obtained. Principal component extraction was followed by varimax rotation to obtain each solution. The solution for six components was considered to be the most interpretable. The loadings for this solution are given in Table IV. Items with loadings of .40 or more suggested descriptive labels for five components with one component being considered uninterpretable. The components were labeled as follows: Component 1, Tension

TABLE IV  
COMPONENT LOADINGS FOR THE  
SIX-COMPONENT SOLUTION  
FOR COMBINED GROUP

Item No.	Components					
	TA	LD	WS	X	FP	TM
Q1	0.52430	0.09833	0.27834	0.17886	0.00186	0.17141
Q2	0.50789	0.12255	0.23824	0.18931	-0.10300	0.00171
Q3	0.65047	0.21728	0.15245	0.00014	0.06811	-0.03317
Q4	0.32844	0.30532	0.08289	0.10732	0.07844	0.04800
Q5	0.09729	0.07407	0.24992	0.34872	0.17806	0.15026
Q7	0.29797	0.04707	0.40730	0.24276	0.06136	-0.16895
Q10	0.15526	0.25687	0.50730	0.08023	0.01596	0.21541
Q11	0.71807	0.11632	0.08397	0.12521	0.09769	-0.06036
Q12	0.49469	0.13063	0.09328	0.25630	0.02938	-0.03368
Q13	0.36758	0.16272	0.10912	0.07415	-0.03795	0.20758
Q14	0.54845	0.08668	0.13301	-0.16483	-0.10246	-0.02567
Q15	0.61453	0.05898	-0.05897	0.16323	-0.02373	-0.08507
Q17	0.28574	0.04866	0.49675	0.01781	-0.03397	0.07062
Q18	0.08830	-0.08237	0.67843	-0.10710	0.00412	0.08588
Q19	0.16071	-0.02284	0.49116	-0.02590	0.15999	-0.05271
Q20	0.17324	0.67518	0.27406	-0.03731	-0.05212	0.10144
Q21	0.09713	0.63753	0.19963	0.04693	0.08227	0.06154
Q22	0.44671	0.58240	0.06844	0.01705	-0.06669	-0.13191
Q23	0.48187	-0.03048	0.26066	0.23923	0.17908	-0.04897
Q24	0.35731	0.12900	0.28159	0.33354	-0.06142	0.03182
Q25	0.64122	0.02151	0.03602	0.04239	0.13979	0.01747
Q26	-0.18822	0.06962	0.02086	0.44908	-0.04859	0.03491
Q27	0.14948	0.03090	0.30582	0.50649	0.23192	-0.06549
Q28	0.20900	0.31971	0.12775	0.33260	-0.03588	-0.12533
Q29	0.57105	0.12752	0.03964	0.17583	0.14096	-0.03479
Q31	0.29626	0.34506	0.26445	0.36524	0.00036	-0.17032
Q32	0.20462	-0.00829	0.05142	0.50596	-0.00814	0.07239
Q33	0.24807	0.09822	0.09827	0.12874	0.68782	-0.08325
Q34	0.16493	0.05158	0.06263	0.02283	0.72968	-0.00606
Q35	0.01882	0.04105	0.50143	0.02762	0.16153	-0.19989
Q36	0.21059	0.10521	-0.15532	0.53172	0.08022	0.11197
Q38	-0.00429	-0.00013	0.10813	0.05423	0.67456	-0.07032
Q39	0.19361	0.26798	0.25399	0.06740	0.04663	0.26480
Q40	0.30431	0.31621	0.17968	0.09734	0.09476	0.33545
Q43	0.19575	0.28373	0.16654	-0.20810	0.04559	0.12285
Q44	0.67751	0.18309	-0.01566	-0.04994	0.24852	0.23790
Q45	0.47362	0.30239	-0.13164	-0.00012	0.11770	0.24476
Q46	0.38651	0.09406	0.06728	0.01089	0.33401	0.33207
Q47	0.58993	0.12338	0.02615	0.01701	0.04509	0.07095
Q49	0.53874	-0.04307	0.16422	-0.09709	0.17410	0.10920
Q52	0.58210	0.15692	0.03125	-0.07983	0.22643	0.09667
Q53	0.31266	0.13815	0.13123	-0.06241	0.22836	0.35320
Q54	0.37295	0.07220	-0.00767	0.08161	0.07557	0.52345
Q55	-0.00215	0.57227	-0.04312	0.02273	0.04638	-0.15542
Q56	0.05219	0.77149	-0.00684	0.05936	-0.04096	-0.04570
Q58	0.12815	0.70379	0.07941	0.16729	0.00913	-0.02339
Q59	0.27596	0.47877	-0.04911	0.11105	0.18581	0.23314
Q60	0.03011	-0.06514	0.03751	0.46662	0.04294	0.16043
Q61	-0.07006	0.06637	0.37670	0.20737	-0.10410	-0.03694
Q62	-0.02123	0.03118	-0.09608	-0.06733	0.10749	-0.49548
Q63	0.07591	0.15054	0.05300	-0.15880	0.02185	-0.45939

TABLE IV (CONTINUED)

Q65	0.09433	0.48415	-0.09414	-0.07763	0.05923	-0.00360
Q66	0.10008	0.05165	0.07680	-0.03712	0.14195	-0.43901
Q68	0.12288	0.00904	0.33221	0.25000	0.24015	-0.22168
Q70	-0.04605	0.14725	0.32908	0.08651	0.07271	0.13788
Q71	0.13915	0.04685	-0.05030	-0.15078	0.16237	0.23424

TA = Tension and Aggression  
LD = Learning Disabilities  
WS = Worry and Sleep Problems

X = Uninterpretable  
FP = Family Problems  
TM = Taking Medication

and Aggression; Component 2, Learning Disabilities; Component 3, Worry and Sleep Problems; Component 4, Family Problems; and Component 5, Taking Medication. The number of items with loadings greater than .40 were 15 for Component 1, eight for Component 2, six for Component 3, five for Component 4, and four for Component 5. Appendix A and Table IV provide the content of each item and the component loadings.

The six-component solution for the Combined Group was extended to obtain loadings for sex and age. On Component 1, Tension and Aggression, there was a moderately large loading (.235) for sex. This indicates that males tended to be higher on this component. Age had a moderately large loading on two components. On Component 2, Learning Disabilities, older children tended to score higher (.208); and one Component 6, Taking Medication, younger children tended to score higher (.204).

The data for the Combined Group were used to compute component scores for each of the five interpretable components. Using the group number as the independent variable and each of the component scores, in turn, as dependent variables, five analyses of variance were



completed. Three of these yielded statistically significant  $F$  values. For Component 1, Tension and Aggression,  $F [1,342] = 54.70$ ,  $p < .0001$ , and the correlation ratio was .37. For this component, the Pediatric Psychology Clinic group mean ( $M = .38$ ) was higher than the Pediatric Clinic group mean ( $M = -.36$ ). For Component 2, Learning Disabilities,  $F [1,342] = 11.48$ ,  $p < .0008$ , and the correlation ratio was .18. The Pediatric Psychology Clinic group mean ( $M = .19$ ) was higher than the Pediatric Clinic group mean ( $M = -.17$ ). On Component 3, Worry and Sleep Problems,  $F [1,342] = 6.02$ ,  $p < .0146$ , and the correlation ratio was .13. On this component, the Pediatric Psychology Clinic group mean ( $M = .14$ ) was higher than the Pediatric Clinic group mean ( $M = -.13$ ). There were no significant differences on Component 4, Family Problems, and Component 5, Taking Medication.

A scoring system for the CSCC was devised. The scoring key gives a value of +1 or 0 to each response. These values are then totaled to obtain an approximate score for each component. A copy of this scoring key is shown in Appendix C. In order to provide normative data for future use, means and standard deviations for these scores were calculated for Group 1, Group 2 and the Combined Group. These normative data are shown in Appendix D. Finally, internal consistency reliability estimates for each score were calculated. The reliability estimates (coefficients alpha) are as follows: Learning Disabilities,  $\alpha = .81$ ; Family Problems,  $\alpha = .68$ ; Worry and Sleep Problems,  $\alpha = .64$ ; Tension and Aggression,  $\alpha = .88$ ; and Taking Medication,  $\alpha = .42$ . While it should be kept in mind that these normative data and reliability estimates are based on a sample limited in size and generalizability, this information can be useful for future clinical and research purposes.

## CHAPTER IV

### DISCUSSION

The dimensional analyses yield four or five interpretable components for each group. There was one uninterpretable component for each group.

In Group 1, there are five interpretable components. The Learning Disabilities component describes several symptoms associated with learning problems and also refers to other disorders (e.g., visual, hearing, speech problems) which may interfere with learning. The Family Problems components involves items referring to family conflict and whether other children in the family exhibit problems as well.

The Worry and Sleep Problems component resides in items referring to fears and concerns the child has about him/herself and his/her family, oversensitivity, lack of self-confidence, eating and sleeping disturbances, and somatic complaints. These symptoms closely resemble those of childhood depression (Petti, 1983; Weiner, 1982; American Psychiatric Association, 1980). However, Coleman (1976) lists oversensitivity, unrealistic fears and worries, pervasive feelings of inadequacy, and sleep disturbances among the symptoms of overanxious reactions.

The Tension component involves items of moodiness, including anger, hysteria, and becoming easily overexcited. There are also symptoms relating to hyperactivity and restlessness. Other items relate to temper tantrums and exploding under stress. Together these

items suggest a hypersensitivity to stimuli, and an inability to restrain emotions.

Finally, the Aggression component indicates activities such as lying, stealing, manipulation, attempting to harm others or animals, and provoking others (e.g., teasing). Selfishness or self-centeredness also loads on this component. This component seems to describe the delinquent who disregards the rights of others.

In Group 2, only four interpretable components emerge. The Learning Disabilities component involves items specifically concerning learning problems, such as difficulty concentrating and remembering, plus items directly referring to the child having a learning disability and being in a special program at school.

The Family Problems component entails two constellations of items. First, there are the items referring to family conflict and other children in the family who also have problems, as in Group 1. Second, there are items reflecting anxiety about the child and his/her family. These items are oversensitivity, somatic complaints, and fears concerning something terrible happening to the child or his/her family. This second configuration might be referred to as "family anxiety". It also entails some of the items from the Worry and Sleep Problems component in Group 1, making the Group 2 Family Problems component resemble two of the components in Group 1.

A Tension and Aggression component is related to items of moodiness and some aggressive behavior. Moodiness refers to anger, becoming hysterical when things do not go his/her way, and complaining that he/she never gets a fair share. The aggressive behaviors are temper tantrums, lying, and manipulation, but more delinquent behaviors are not included. This component, most similar to Tension in Group 1,

appears to reflect a child who is unable to restrain his emotions when under stress.

Finally, a Taking Medication component relates to physical problems such as a major illness or operation, or visual, hearing or speech problems. The final item involved in this component is Item 24 (My child says people don't like him.). This item loads in the opposite direction from the other items. A high loading on this component suggests that a child with physical problems and/or illness gets support from others and feels well-liked. We can speculate that this occurs because of the attention a child usually receives from others during illness.

In the Combined Group, there are again five interpretable components. The items related to Learning Disabilities are identical to those involved in the corresponding component in Group 1 and include many of the items pertaining to the corresponding component in Group 2. Simply put, the items involved in Learning Disabilities are consistent over all three groups. These items refer to concentration and memory problems, and to physical problems, such as speech or hearing problems, which may interfere with the learning process.

The Family Problems component, as in Group 1, reflects only family conflict with much arguing and fighting occurring, and other children in the family who also have problems.

The Worry and Sleep Problems component is related, in part, to items of anxiety. It reflects fears, worries and concerns about the child and his/her family. The sleep disturbances include bad dreams, and walking or talking in sleep.

The Tension and Aggression component involves items relating to tension, moodiness, and aggressive behaviors such as temper tantrums,

provoking others, and manipulation. Moodiness refers to anger, hysteria, and complaints of never getting his/her fair share. No anti-social or delinquent behaviors load highly on this component.

Finally, a Taking Medication component exists in items concerning major illness or operation, allergies, asthma, and taking medication. Item 34 (I often have to spank my child.) loads in the opposite direction from the other items on this component. This indicates that children who are ill receive fewer spankings.

A comparison of the component labels for each group is shown in Table V. Two components which emerge in each group are Learning Disabilities and Family Problems. Worry and Sleep Problems emerge in Group 1 and the Combined Group. Tension and Aggression, as one component, appears in Group 2 and the Combined Group, but appears as two separate components in Group 1. Taking Medication appears in Group 2 and the Combined Group.

The four or five interpretable components resemble dimensions identified by previous research. The Learning Disabilities component resembles Miller's (1967a) broad, general dimension, Learning Disabilities. There is no learning disabilities dimension on Achenbach's CBCL (1978a). The Family Problems dimension is not comparable to either the LBCL or the CBCL as neither checklist includes similar items. Worry and Sleep Problems compares well with Achenbach's (1978a) Internalizing and Miller's (1967a) Inhibition, which are broad, general dimensions. The Tension or Tension and Aggression components compare well with Miller's (1967a) broad, general dimension Aggression and Achenbach's (1978a) Externalizing dimension, also a broad, general dimension. The Aggression component in Group 1 is similar to the narrow, specific dimensions Antisocial (Miller, 1967a) and Delinquent

TABLE V  
A COMPARISON OF COMPONENTS  
FOR EACH GROUP

Group 1	Group 2	Combined Group
*Learning Disabilities	*Learning Disabilities	*Learning Disabilities
Family Problems	Family Problems	Family Problems
*Worry and Sleep Problems		*Worry and Sleep Problems
*Tension	*Tension and Aggression	*Tension and Aggression
Aggression		
	Taking Medication	Taking Medication
**	**	**

\*Broad, general components

\*\*For each group, there was one uninterpretable component. The items involved in these uninterpretable components are not the same across groups.

(Achenbach, 1978a). This suggests that the Aggression component may be a specific dimension also.

From this comparison, it appears that the components of the Current Symptom Checklist for Children (CSCC) are mostly broad, general dimensions. However, there is comparability of one of the CSCC components to the more specific, narrower dimensions of Miller (1967a) and Achenbach (1978a). It is, therefore, believed that if a larger

sample size is obtained for the CSCC, further dimensional analyses would produce more narrow, specific dimensions.

The Taking Medication and Family Problems components differ substantively from the other components. The Learning Disabilities, Tension and Aggression and Worry and Sleep Problems components involve behavior problems or psychological symptoms; Family Problems, on the other hand, has more to do with a child's environment than with the behavior of the child him/herself, and Taking Medication primarily involves physical problems. Thus, the issue of generality versus specificity of dimensions probably is meaningful only for the three behavior problem components and not for Family Problems and Taking Medication.

As shown in the Results section, the psychiatric group (Group 1) differs significantly from the non-psychiatric group (Group 2) on all three behavior problem components (i.e., Tension and Aggression, Worry and Sleep Problems, and Learning Disabilities). The group mean for the psychiatric group is higher than that for the non-psychiatric group for each of these components. This is not surprising; in fact, we expected the children in the psychiatric group to exhibit significantly more behavior problems than the non-psychiatric group. This finding gives credibility to the CSCC for being able to detect differences between the psychiatric and non-psychiatric groups.

The five and six component solutions were extended to obtain loadings for age and sex. The Learning Disabilities component is related to both age and sex. In Group 1, males score higher than females. This is consistent with the literature where estimated ratios for males to females ranges from 4:1 to 9:1 (Koppitz, 1971; Lynn, Gluckin & Kripke, 1979; Lefebvre & Hawke, 1983). In Group 2

and the Combined Group, older children score higher than younger children. Children are not usually considered to be learning disabled until they fall two grade levels below average (Lefebvre & Hawke, 1983). Therefore, students may not be diagnosed as learning disabled until they reach age nine or ten.

On the Family Problems component in Group 2, females score higher than males. This component contains items of anxiety about the self as well as about the family. The means that for females in a non-psychiatric population, their anxiety is associated with family conflict, and they experience this anxiety more often than males do.

In Group 1, the Worry and Sleep Problems component scores for older children are higher than for younger children. This means that children between the ages of 10-12 in the psychiatric group exhibit more fears and concerns about themselves and their families, and have more eating and/or sleeping disturbances and somatic complaints. However, this finding may only reflect greater verbal abilities for expressing their concerns than younger children possess, meaning that parents are more aware of older children's fears. The literature on the number of fears children have is inconclusive concerning the relation to age, but there is a tendency for younger children to exhibit more fears (Miller, 1983; Lapouse & Monk, 1959; MacFarlane, Allen & Honzik, 1954). Other symptoms described by this component vary in prevalence at different age levels and may reflect developmental issues. For example, sleep disturbances are more common at younger ages (Rae-Grant, Carr & Berman, 1983), but eating disorders increase as children approach adolescence (Leon & Dinklage, 1983; Levine, Korenblum & Golombeck, 1983).



On the Tension and Aggression component, males score higher than females in Group 2 and the Combined Group. According to Doke and Flippo (1983), numerous studies have documented that males are more aggressive than females. Such findings are usually explained in two ways. First, differential methods of socialization for males and females, and second, the male hormone, androgen, are cited as causes of increased aggression in males. Examination of the items involved in these components suggests that males have greater difficulty than females in modulating their emotions and controlling their behavior. There is a difference, however, when Tension and Aggression are separate components, as they are in Group 1. Here, neither is related to gender.

In the Combined Group, younger children score higher on the Taking Medication component. This means that younger children experience more health problems and are taking medication more often than older children. This finding does not necessarily mean that younger children have serious health problems; they may be exhibiting only minor problems which require the taking of medication.

There are eight items which did not reach the 20% utilization criterion for any of the three groups. These items are listed in Table I. Since there are no items which are gender-specific, and most could apply to any age, it appears that these symptoms occur infrequently in children ages 4-12. If any of these symptoms is reported, it suggests that this child is exhibiting atypical behavior which might merit further investigation.

The CSCC shows great promise as an interview guide and assessment tool. This study identified some broad, general dimensions which will be helpful in classifying children's psychological symptoms and in

formulating treatment strategies. A need still exists to conduct test-retest reliability and construct and criterion validity studies. Another possibility is to gather data from a much larger, but otherwise comparable, sample in order to discover any narrower, more specific dimensions.

Further studies should also concentrate on sampling children who have not been referred to any type clinic. In this case, an effort should be made to obtain an equal number of males and females and to equitably represent each age group. In all future samples, collecting demographic information may yield some interesting results.

In summary, the CSCC was originally developed as an interview guide in a pediatric psychology clinic. Samples were collected from a pediatric psychology clinic and a pediatric medical clinic. The data were analyzed using three groups: Group 1, the pediatric psychology clinic subjects; Group 2, the pediatric medical clinic subjects; and the Combined Group (Group 1 plus Group 2). For each group, items with less than 20% utilization were eliminated from further analyses. The remaining items were intercorrelated and subjected to principal component analysis followed by varimax rotation. The interpretable components obtained in the best solution for each group were given descriptive labels. All components were then extended to obtain loadings for age and sex. In the Combined Group, F-tests were completed for each labeled component with group status as the independent variable and each component score as a dependent variable. A scoring key was devised and normative data was presented. Estimated reliabilities for each score were calculated.

The items involved in each component were described and were compared across all three groups. The components were also compared

to dimensions of the LBCL (Miller, 1967a) and the CBCL (Achenbach, 1978a).

The CSCC is considered to be a valuable tool for determining child behavior problems. Further research will improve the CSCC's usefulness for both clinical and research purposes.

## REFERENCES

- Achenbach, T. M. (1966). The classification of children's psychiatric symptoms: a factor analytic study. Psychological Monographs, 80(7, Whole No. 615).
- Achenbach, T. M. (1978). The Child Behavior Profile, I: Boys aged 6-11. Journal of Consulting and Clinical Psychology, 46, 478-488.
- Achenbach, T. M. (1978). Psychopathology of childhood: research problems and issues. Journal of Consulting and Clinical Psychology, 46, 759-776.
- Achenbach, T. M., & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. Monographs of the Society for Research in Child Development, 46(1, Serial No. 188).
- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author.
- Coleman, J. C. (1976). Abnormal Psychology and Modern Life (5th ed.). Glenview, Illinois: Scott, Foresman and Company.
- Doke, L. A., & Flippo, J. R. (1983). Aggressive and oppositional behavior. In T. H. Ollendick & M. Hersen (Eds.), Handbook of Child Psychopathology (pp.323-356). New York: Plenum Press.
- Glidewell, J. C., Mensh, I. N., & Gildea, M. C-L. (1957). Behavior symptoms in children and degree of sickness. American Journal of Psychiatry, 114, 47-53.

- Goldman, J., Stein, C. L., & Guerry, S. (1983). Psychological Methods of Child Assessment. New York: Brunner/Mazel, Inc.
- Koppitz, E. M. (1971). Children with learning disabilities. A five year follow-up study. New York: Grune & Stratton.
- Lapouse, R., & Monk, M. A. (1959). Fears and worries in a representative sample of children. American Journal of Orthopsychiatry, 29, 803-818.
- Lefebvre, A., & Hawke, W. (1983). Learning disorders in children and adolescents. In P. D. Steinhauer & Q. Rae-Grant (Eds.), Psychological Problems of the Child in the Family (pp. 350-380). New York: Basic Books, Inc., Publisher.
- Leon, G. R., & Dinklage, D. (1983). Childhood obesity and anorexia nervosa. In T. H. Ollendick & M. Hersen (Eds.), Handbook of Child Psychopathology (pp. 253-275). New York: Plenum Press.
- Levine, S., Korenblum, M., & Golombek, H. (1983). Disorders commonly appearing first during adolescence. In P. D. Steinhauer & Q. Rae-Grant (Eds.), Psychological Problems of the Child in the Family (pp. 414-438). New York: Basic Books, Inc., Publishers.
- Lynn, R., Gluckin, N., & Kripke, B. (1979). Learning disabilities. An overview of theories, approaches, and politics. New York: The Free Press.
- MacFarlane, J. W., Allen, L., & Honzik, M. P. (1954). A developmental study of the behavior problems of normal children between twenty-one months and fourteen years. Berkeley: University of California Press.
- Mesibov, G., Schroeder, G., & Wesson, L. (1977). Parental concerns about their children. Journal of Pediatric Psychology, 2, 13-17.

- Miller, L. C. (1967). Louisville Behavior Check List for males, 6-12 years of age. Psychological Reports, 21, 885-896.
- Miller, L. C. (1967). Dimensions of psychopathology in middle childhood. Psychological Reports, 21, 897-903.
- Miller, L. C. (1983). Fears and anxiety in children. In C. E. Walker & M. C. Roberts (Eds.), Handbook of Clinical Child Psychology (pp. 337-380). New York: John Wiley & Sons.
- Monnelly, E., Ianzito, B., & Stewart, M. (1973). Psychiatric consultations in a children's hospital. American Journal of Psychiatry, 130, 789.
- Novick, J., Rosenfeld, E., Bloch, D. A., & Dawson, D. (1966). Ascertaining deviant behavior in children. Journal of Consulting Psychology, 30, 230-238.
- Nunnally, J. C., Jr. (1970). Introduction to Psychological Measurement. New York: McGraw-Hill Book Company.
- Peterson, D. R. (1961). Behavior problems of middle childhood. Journal of Consulting Psychology, 25, 205-209.
- Petti, T. A. (1983). Depression and withdrawal in children. In T. H. Ollendick & M. Hersen (Eds.), Handbook of Child Psychopathology (pp. 253-276). New York: Plenum Press.
- Rae-Grant, Q., Carr, R. P., & Berman, G. (1983). Childhood developmental disorders. In P. D. Steinhauer & Q. Rae-Grant (Eds.), Psychological Problems of the Child in the Family (pp. 168-196). New York: Basic Books, Inc., Publishers.
- Sines, J. O., Pauker, J. D., Sines, L. K., & Owen, D. R. (1969). Identification of clinically relevant dimensions of children's behavior. Journal of Consulting and Clinical Psychology, 33, 728-734.

- Walker, C. E. (1979). Behavioral intervention in a pediatric setting.  
In J. R. McNamara (Ed.), Behavioral Approaches to Medicine:  
Application and Analysis. New York: Plenum Press.
- Weiner, I. B. (1982). Child and Adolescent Psychopathology. New York:  
John Wiley & Sons.
- Wilson, D. R., & Prentice-Dunn, S. (1981). Rating scales in the  
assessment of child behavior. Journal of Clinical Child Psych-  
ology, 10, 121-125.
- Wimberger, H. D., & Gregory, R. J. (1968). A behavior checklist for  
use in child psychiatry clinics. Journal of the American Academy  
of Child Psychiatry, 7, 677-688.

## APPENDIXES



## APPENDIX A

### CURRENT SYMPTOM CHECKLIST FOR CHILDREN

ID# \_\_\_\_\_

## Current Symptom Checklist

Birth Date of child \_\_\_\_\_

Relationship of person completing  
questionnaire to child, e.g. mother

Sex of child \_\_\_\_\_

Below you will find a large number of statements about your child and the problems he or she is having. Circle "YES" for those that are true of your child at the present. Circle "NO" for those that are not true at present.

Personal - Social

- |  |     |    |
|--|-----|----|
| 1. My child continually seeks attention.   | YES | NO |
| 2. Often I can see the tension building up in my child.  | YES | NO |
| 3. My child explodes under stress.   | YES | NO |
| 4. My child has nervous habits, like pulling at his (her) clothing, clearing his (her) throat often, sniffing his (her) nose, etc. | YES | NO |
| 5. My child cries easily.  | YES | NO |
| 6. My child is a thumb or finger sucker.   | YES | NO |
| 7. My child is a worrier.  | YES | NO |
| 8. My child often rocks back and forth.  | YES | NO |
| 9. My child shakes or trembles sometimes.  | YES | NO |
| 10. My child has many or unusual fears.  | YES | NO |
| 11. My child is often angry.   | YES | NO |
| 12. My child is moody.   | YES | NO |
| 13. My child becomes overexcited easily.   | YES | NO |
| 14. My child is hyperactive and restless.  | YES | NO |
| 15. My child becomes hysterical, upset, or angry when things do not go his (her) way.  | YES | NO |
| 16. My child seems sad.  | YES | NO |
| 17. My child has sleep problems.   | YES | NO |

Current Symptom Checklist  
Page 2

18. My child has bad dreams.	YES	NO
19. My child walks or talks in his (her) sleep. (Underline which.)	YES	NO
20. My child gets confused easily.	YES	NO
21. My child has trouble remembering things.	YES	NO
22. My child has difficulty concentrating for any length of time.	YES	NO
23. My child complains he (she) never gets a fair share of things.	YES	NO
24. My child says people don't like him (her).	YES	NO
25. My child often tends to be very selfish and self-centered.	YES	NO
26. My child is very shy.	YES	NO
27. My child is sensitive and has his (her) feelings hurt easily.	YES	NO
28. My child avoids competition.	YES	NO
29. My child is often a poor sport and a poor loser.	YES	NO
30. My child often has trouble making friends.	YES	NO
31. My child often seems to have little self-confidence.	YES	NO
32. My child cannot get along with my husband (wife).	YES	NO
33. We frequently have family problems.	YES	NO
34. There is a lot of arguing and fighting in our house.	YES	NO
35. My child expresses concern about something terrible or horrible happening to family members or himself (herself).	YES	NO
36. My child does not get along with his (her) brothers and sisters.	YES	NO
37. My child often expresses strong dislike for home and family.	YES	NO
38. One (or more) of my other children has problems too.	YES	NO
39. My child often says strange things or asks unusual questions.	YES	NO

## Current Symptom Checklist

Page 3

- |   |     |    |
|---|-----|----|
| 40. My child often does strange or stupid things.                               | YES | NO |
| 41. My child often says he (she) wishes he (she) were dead or away from it all. | YES | NO |
| 42. My child has been physically or sexually abused.                            | YES | NO |
| 43. My child often has small accidents or injuries.                             | YES | NO |

Behavioral

- |   |     |    |
|---|-----|----|
| 44. My child is a discipline problem at home.   | YES | NO |
| 45. My child is a discipline problem at school.                                       | YES | NO |
| 46. My child tells tall tales or lies.  | YES | NO |
| 47. My child often throws temper tantrums.  | YES | NO |
| 48. My child has attempted to seriously harm a person or animal.                      | YES | NO |
| 49. My child manipulates situations to his (her) own benefit.                         | YES | NO |
| 50. My child does sexual things he (she) shouldn't.                                   | YES | NO |
| 51. My child seems to welcome punishment.   | YES | NO |
| 52. My child disturbs other children: teasing, provoking fights, interrupting others. | YES | NO |
| 53. My child steals things sometimes.   | YES | NO |
| 54. I often have to spank my child.   | YES | NO |

School

- |   |     |    |
|---|-----|----|
| 55. My child is in a special program at school.               | YES | NO |
| 56. My child may have a learning disability.                  | YES | NO |
| 57. My child voices an intense dislike of school.             | YES | NO |
| 58. My child does not seem to be learning as he (she) should. | YES | NO |
| 59. The teachers complain about my child.                     | YES | NO |

## Current Symptom Checklist

Page 4

Physical

- |   |     |    |
|---|-----|----|
| 60. My child's bowels do not move regularly.  | YES | NO |
| 61. My child is overweight or underweight.  | YES | NO |
| 62. My child is taking medicine now.  | YES | NO |
| 63. My child has had a major illness, operation or accident.  | YES | NO |
| 64. My child frequently stares blankly into space and is unaware of his (her) surroundings when doing so. | YES | NO |
| 65. My child has a visual, hearing, or speech problem. (Underline which.)                                 | YES | NO |
| 66. My child has allergies or asthma.   | YES | NO |
| 67. My child has a chronic illness or handicap.   | YES | NO |
| 68. My child often complains of illnesses such as nausea or stomach pain or headaches.                    | YES | NO |
| 69. My child sometimes has accidental bowel movements in his (her) clothing.                              | YES | NO |
| 70. My child has eating problems.   | YES | NO |
| 71. My child wets the bed.  | YES | NO |

Other

List any other problems or concerns you have about your child that were not listed above.

---



---



---



---



---



---



---



---



---



---

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

ID# \_\_\_\_\_

## GENERAL BACKGROUND INFORMATION

PLEASE ANSWER THE FOLLOWING QUESTIONS AS COMPLETELY AS POSSIBLE. ALL ANSWERS WILL REMAIN CONFIDENTIAL.

1. Marital status of parents?  
☐ Married  
☐ Divorced/Separated  
☐ One parent deceased
2. With whom is child living?  
\_\_\_\_\_
3. Check the size of your place of residence:  
☐ Rural  
☐ Small town (10,000 or less population)  
☐ City (10,000 to 50,000 population)  
☐ Large city (50,000 or greater population)
4. What is your occupation?  
☐ Unemployed  
☐ Unskilled labor  
☐ Semi-skilled labor  
☐ Skilled labor  
☐ Clerical or office  
☐ Managerial  
☐ Professional
5. What is your family's annual income?  
\_\_\_\_\_
6. How many years of education have you completed?  
☐ Grammar school to 6th grade  
☐ Grades 7-9  
☐ Some High School  
☐ High School Graduate  
☐ Some College or Business School  
☐ College Graduate  
☐ Post-graduate or professional degree
7. Check the following category that applies to you:  
☐ Caucasian  
☐ Black  
☐ Hispanic  
☐ Asian  
☐ Native American, Alaskan Native
8. Has your child been referred to a psychologist, psychiatrist, or or counselor for help with personal problems?  
☐ Yes      ☐ No

## APPENDIX C

### SCORING KEY



## SCORING KEY

Component	Item No.	Score	
		Yes	No
Learning Disabilities	20	+1	0
	21	+1	0
	22	+1	0
	55	+1	0
	56	+1	0
	58	+1	0
	59	+1	0
	65	+1	0
Family Problems	33	+1	0
	34	+1	0
	38	+1	0
Worry and Sleep Problems	7	+1	0
	10	+1	0
	17	+1	0
	18	+1	0
	19	+1	0
	35	+1	0
Tension and Aggression	1	+1	0
	2	+1	0
	3	+1	0
	11	+1	0
	12	+1	0
	14	+1	0
	15	+1	0
	23	+1	0
	25	+1	0
	29	+1	0
	44	+1	0
	45	+1	0
	47	+1	0
	49	+1	0
	52	+1	0
Taking Medication	54	0	+1
	62	+1	0
	63	+1	0
	66	+1	0

## APPENDIX D

### NORMATIVE DATA

## NORMATIVE DATA

## Group 1

Component	N	Mean	Standard Deviation
Learning Disabilities	166	3.00	2.48
Family Problems	166	0.97	1.07
Worry and Sleep Problems	166	2.04	1.64
Tension and Aggression	166	7.70	4.28
Taking Medication	166	1.31	1.08

## Group 2

Learning Disabilities	177	1.63	1.90
Family Problems	177	0.77	1.00
Worry and Sleep Problems	177	1.23	1.33
Tension and Aggression	177	4.22	3.68
Taking Medication	177	1.36	1.00

## Combined Group

Learning Disabilities	343	2.30	2.30
Family Problems	343	0.87	1.04
Worry and Sleep Problems	343	1.62	1.54
Tension and Aggression	343	5.90	4.34
Taking Medication	343	1.33	1.04

VITA

Annette Miles

Candidate for the Degree of

Master of Science

Thesis: DIMENSIONS AND SCORING OF THE CURRENT SYMPTOM CHECKLIST  
FOR CHILDREN

Major Field: Psychology

Biographical:

Personal Data: Born in Pawnee, Oklahoma, April 9, 1949, the  
daughter of Wanda M. and Walter J. Miles.

Education: Graduated from Shawnee High School, Shawnee, Oklahoma  
in May, 1967; attended the University of Oklahoma, September,  
1967 to January, 1968; attended Oklahoma Baptist University,  
January, 1968 to May, 1969; received Bachelor's of Arts degree  
in Psychology in July, 1979; from Central State University,  
Edmond, Oklahoma; completed requirements for the Master of  
Science degree in Psychology from Oklahoma State University,  
Stillwater, Oklahoma in July, 1986.

Professional Experience: Graduate Teaching Assistant, Department  
of Psychology, Oklahoma State University, 1984-85; Psycho-  
logical Associate, Psychological Services Center, Oklahoma  
State University, 1981-82; Practicum Student, Veteran's  
Administration Hospital, Oklahoma City, 1982; Intern, Bi-  
State Mental Health Foundation, Ponca City, 1982-83; Practi-  
cum Student, Marriage and Family Counseling Services, Okla-  
homa State University, 1983; Practicum Student, Payne County  
Guidance Center, Stillwater, 1983; Practicum Student,  
Griffin Memorial Central State Hospital, Norman, 1983-84;  
Practicum Student, Red Rock Comprehensive Mental Health  
Center, Oklahoma City, 1985-86.

Professional Associations: American Psychological Association,  
Minority Fellow, 1983-1986.