

AN ASSESSMENT OF THE VALIDITY  
OF THE SOCIAL COMPETENCE  
SCALE OF THE CHILD  
BEHAVIOUR CHECKLIST

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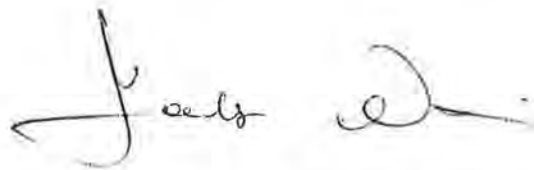
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Being a report of an investigation submitted as a  
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Science (Honours), majoring in Applied Psychology, at  
the USQ.



Statement of Originality

This report contains no material offered for the award of any other degree or diploma, or material previously published, except where due reference is made in the text.

A handwritten signature in cursive script, appearing to read 'Jocelyn Norrie', written in black ink on a white background.

Name: Jocelyn Norrie

# Validation Study of the SC Scale of the CBCL

## Abstract

The Child Behaviour Checklist (CBCL) (Achenbach, 1991) is one of the most commonly used measures for identifying social competence and behaviour problems in children. The present study aimed to assess the questionable validity of the social competence (SC) scale of the CBCL. Eighty-six children comprised a general sample, 34 children comprised a low achieving group and 46 children comprised a group exposed to domestic violence. A CBCL was completed by the mothers of these children and a score computed for behaviour syndromes and SC. Overall, results provide only minimal validation of the SC scale of the CBCL. Reasons for this are discussed and attention drawn to the need for investigation of the construct of SC.

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Social Competence (SC) is one of the most defined and redefined terms in the child development literature. A good illustration of the inconsistency in the definitions of SC is to view a number of them individually. Consider these: "effective response of the individual to specific life situations" (Golfried & d'Zurilla, 1969, p158); "a judgment by another that an individual has behaved effectively" (McFall, 1982, p1); "the possession of the capability to generate skilled behaviour" (Trower, 1982, p419); "aspects of social behaviour that are important with respect to preventing physical illness or psychopathology in children and adults" (Putallaz & Gottman, 1983, p7); "the competent individual is one who is able to make use of environmental and personal resources to achieve a good developmental outcome" (Waters & Sroufe, 1983, p81). These definitions vary widely in their emphasis on social cognitive skills, behavioural performance, judgments by others and psychological risk. This inconsistency creates a massive obstacle to a clear and

inclusive conceptualisation of the development of SC in children and the development of measures to assess SC.

In considering SC it is important to note that it is generally accepted that there is a fundamental difference between SC and social skills. McFall's (1982) delineation between the two, appears to be considered adequate amongst many researchers in this area. That is, that SC is an evaluative term that reflects one individual's judgment about the quality of another person's performance on a given social task, while social skills are the specific abilities required to enable the individual to respond in a manner that results in judgments of the behaviour as socially competent.

Researchers have investigated the differences in social behaviour between a presumably socially competent group of children (eg. children who are developing normally) and less competent group of children (eg. children with mental retardation or autism). Behavioural categories that discriminate between these groups are assumed to reflect social competence when the



more competent group of children engages in certain behaviours that are absent or occur less frequently for the less competent group (Odom & Ogawa, 1992). Research such as that described has resulted in the proposal of a number of behavioural characteristics which contribute to social incompetence in children. These include aggression (Anderson & Messick, 1974; Dodge, Pettit, McClaskey & Brown, 1986), anxiety (Anderson & Messick, 1974), poor attention (Anderson & Messick, 1974), high internalising and externalising groups of behaviour (Compas, Phares, Banez & Howell, 1991), antisocial behaviour (Anderson & Messick, 1974; Spence & Liddle, 1990; ) impulsive behaviour (Coie, 1985, in Walker, Irvin, Noell & Singer, 1992; Ladd, 1981) and withdrawn behaviour (Strain, Guralnick & Walker, 1986). Based on the evidence, it would appear that social incompetence can be indicated by the possession of behavioural characteristics such as those mentioned above. This is highlighted by the fact that children labeled as hyperactive, aggressive, withdrawn, even autistic have all been characterised as socially incompetent (Foster &

Ritchey, 1979) in at least some situations since the beginning of the literature on SC.

Research with particular groups of children has found that there are children who are at a higher risk of having behaviour problems and lower SC than control children. These groups include children from violent homes, mentally retarded, learning disabled and emotionally disturbed children. Children from violent homes have been described as displaying a higher number of internalising and externalising behaviour problems and lower SC than children from non-violent homes (Fantuzzo, DePaola, Lambert, Martino, Anderson & Sutton, 1991). Wolfe, Jaffe, Wilson and Zak (1985) conducted a study of children from violent and non-violent families using mother's ratings on the Child Behaviour Checklist (Achenbach & Edelbrock, 1983). Their results indicated that children of battered women were rated significantly higher in behaviour problems and were rated lower in SC than children in a comparison group. A similar study by Wolfe, Zak, Wilson and Jaffe (1986) which compared current and former residents of women's shelters to a

nonviolent control group, also found children from domestic violence to have lower levels of SC than control group children.

Children who are learning disabled or who underachieve academically, have also been identified as displaying more behaviour problems than normal children. McCarthy & Paraskevopoulos (1969) in their study of behaviour patterns of learning disabled, emotionally disturbed and average children, found that learning disabled children as a group manifest more conduct problems including aggression, hyperactivity and distractibility than average children. Another study by Merrel (1991) which compared 40 learning disabled, 40 low achieving and 40 typical students, reported that learning disabled and low achieving students were rated as having significantly lower levels of social competence and behavioural adjustment than typical students. A similar study by Sater and French (1989) also found that learning disabled and low-achieving children exhibited lower social competence and a greater incidence of behaviour problems than normal children.

It can be seen from the evidence provided from studies that have investigated children's behaviour problems and social competence, that the two are associated. That is, while there is no causal evidence, it seems apparent that children who exhibit behaviour problems such as those which have been discussed, also have lower social competence than children without behaviour problems.

Some researchers have attempted to explain the association between certain behaviour problems and SC. Behavioural characteristics such as those described above and in particular aggressiveness (Dodge, 1983), an externalising problem, have been shown to affect children's adaptive functioning through the disruption of relations with peers (Hartup, 1978; McConnell & Odom, 1986). The significance of this, is that the role of peer relations has been increasingly recognised as providing unique contributions to the development of SC in children (Asher, 1978, Hartup, 1978; Youniss, 1980, cited in Wine & Syme, 1981). Friendships may provide excellent opportunities for the

development of SC, so that the child who lacks friends as a result of behaviour problems may be socially disadvantaged. Friendships may also be an effective means for acquiring valuable social skills. Children who do not establish successful peer relations, risk becoming rejected and neglected by their peers and suffer the negative consequences of this. Children who become isolated from their peers are also at risk for adjustment problems later in life (Conger, 1981; Wanlass & Prinz, cited in Guralnick et al., 1986).

It can be seen from the literature that SC is linked with behaviour problems, peer relations, academic achievement and consequently childrens' overall adjustment. These links emphasise the importance of social competence in childhood and therefore the importance of a better understanding of what SC is and how it can be measured accurately.

The inconsistency in the definitions of SC has already been highlighted along with the problem this creates in the development of measures of SC. However this lack of agreement in definitions raises a more

important question, and that is of the accuracy of existing measures of SC.

Two general types of measures have been used to conduct SC assessments to date. One type involves ratings of a child's social behaviour by others. The most popular methods for such assessments have been peer nominations and ratings, teacher or parent ratings and direct observations or ratings of a child's behaviour during in vivo assessment from videotapes (Gresham & Elliott, 1984, 1987). The second general class of measurements that can be used include self-report measures, behavioural role plays and behavioural interviews. This second class of measurements has a relatively low frequency of usage.

Measures such as peer, parent and teacher ratings are outcome-based and retrospective measures, whereas direct observations are highly sensitive indicators of a target child's momentary behavioural status within a particular set of stimulus conditions (Dodge, 1986, cited in Walker et al., 1982). As such, these measures do not identify the behavioural correlates of specific

social situations, contexts and tasks in which the child is deficient and relate them causally to outcome measures of social-behavioural adjustment and generic social effectiveness.

One problem is the lack of integration of available measures into a system which permits the assessor to determine clearly whether a given child is experiencing problems of SC and if so, to identify the social skill, social-cognitive, or environmental factors that are contributing to the problem. However, an even greater problem exists. That is, that although measures can be found to assess SC, the situation is far from satisfactory because many of the measures available have not been demonstrated to have acceptable properties in terms of reliability and validity (Spence, 1991).

The focus of the present study will be on the Child Behaviour Checklist (CBCL) (Achenbach, 1991), which is possibly the most commonly used measure of both behaviour problems and SC in the child development literature. There are parallel forms of the CBCL to be filled in by teachers, by direct observers, or by older

children themselves, but the parent CBCL has received the most research focus, and is the subject of the present study.

Eight behaviour syndromes are provided on the CBCL. They are: withdrawn, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behaviour and aggressive behaviour. These behaviour syndromes are also grouped into externalising and internalising problems. Externalising problems are generally viewed as under-controlled behaviours and internalising problems are generally viewed as over-controlled behaviours. The SC scale of the CBCL is comprised of an activities, social and school subscale. A child's SC score is computed by adding the scores for each of these scales.

For the activities subscale of SC, parents answer questions regarding: the number of sports and the child's participation and skill in these sports; the child's participation and skill in activities other than sport; the number of jobs a child has and the quality of performance in these. For the social subscale, parents



answer questions regarding: the number of and participation in organisations or clubs; the number of friends and frequency of contact with friends; the child's behaviour alone; and the child's behaviour with others. Finally, for the school subscale, parents answer questions regarding: the child's performance in subjects at school; whether the child is in a special class; whether the child has repeated a grade; and whether there are any other problems at school.

Achenbach and Edelbrock (1983) designed the items of the SC scale so that children would not be disadvantaged as they would be in other approaches. Parents are asked to specify the sport and nonsport activities that their child most likes to take part in, and to estimate the amount and quality of the child's involvement in each activity as compared to others of the same age. According to the authors, as a result of this, a child who likes only one sport, for example, gets a low score for number of sports, but can nevertheless get a high score for participating more often or more effectively in that sport than peers do.

Similar principles apply to scoring the child's involvement in organisations, jobs and chores, and friendships.

The behaviour syndromes of the CBCL were identified through principal components analysis and have been shown to correlate highly with other instruments which have identified syndromes also. Validation of the CBCL syndromes has been illustrated through correlations between CBCL syndrome scales and the Connors Parent Questionnaire (1973, cited in Achenbach, 1991) and also with the Quay-Peterson Revised Behaviour Problem Checklist (1983, cited in Achenbach, 1991). Correlations between the CBCL and Connors syndrome scales ranged from  $r = .59$  for CBCL Attention Problems with Connors Impulsive-Hyperactive, to  $r = .86$  for CBCL Aggressive Behaviour with Connors Conduct Problem. The correlations between syndrome scales ranged from  $r = .59$  for CBCL Delinquent Behaviour with Quay-Peterson Socialised Aggressive, to  $r = .88$  for CBCL Aggressive Behaviour with Quay-Peterson Conduct Disorder. All of the CBCL syndrome scales correlated

with a similar syndrome on these two measures. This evidence provides the user of the CBCL with confidence that the eight syndrome scales are syndromes which are somewhat constant across measures and provide a good indication of childhood behaviour problems.

Further validation of the CBCL syndrome scales has been provided by comparing scores for referred and non-referred children. All the syndrome scales were scored significantly lower for non-referred children (Achenbach, 1991).

The SC scale of the CBCL has also been shown to differentiate between referred and non-referred children (Achenbach, 1991), however, while this may be seen as adequate validation of the scale, in comparison to the behaviour syndrome scales it is not.

Although the SC scale has been shown to differentiate between referred and non-referred children, Achenbach & Edelbrock do not provide good construct validity for the scale through the correlation of this measure with any other measures of SC. Considering this scale is a significant part of the

CBCL, is one of the few existing measures of SC, and is frequently used clinically and in research, this lack of validation is somewhat poor.

A study by Tanaka and Westerman (1988) which investigated the construct of social competence, is the only study available which provides any construct validity of the SC scale of the CBCL. These researchers found correlations between the Perceived Competence Scale for Children (Harter, 1982) and the SC scale of the CBCL. These correlations ranged from  $r = .29$  to  $r = .36$ . The results of interbattery factor analysis was the identification of two major domains of SC - interpersonal relationships and school or academic competencies. This study did not find physical competencies or activities measures to be represented in their two factors. Achenbach and Edelbrock (1981) and Harter (1982) have both claimed that these are important dimensions of a child's competence.

This finding leads to concern about the face validity of the SC scale. Some of the items scored on the scale would appear as though they could disadvantage

some children. For example, a child who participates in sport at school and who has adequate skill in that sport, but whose parents perhaps cannot afford for their child to play club sport, would not score as high on this item as a child with the same skill but who also played sport outside of school. This same situation is possible on a number of the items including organisations, clubs and hobbies. This point is particularly interesting when it is noted that Achenbach and Edelbrock's (1983) reasoning for designing the social competence items in the manner that they did, was so that children would not be disadvantaged.

As clinic-referred children, especially children from domestic violence, often have parents with lower social status (Walker, 1979, cited in Wolfe et al., 1986), it is possible that these children may score lower on some of the items of the SC scale because of a relative lack of opportunity rather than lower SC per se. This issue is essentially one of whether social status may contribute to a child's SC score and this is an important consideration in the interpretation of this

scale.

It can be seen that there are both problems of psychometrics with the CBCL SC scale, but that there are also problems with the face validity of the items themselves.

The aim of the present study was to examine the validity of the SC scale of the CBCL. Based on the literature it was hypothesised that children exposed to domestic violence and children underachieving academically would have more behaviour problems and lower SC than a general sample of children. The second hypothesis was that scores on the behaviour syndrome scales of the CBCL would be associated with SC scores. The third hypothesis of the study was, that of the eight behaviour syndromes, aggressive behaviour would be the best predictor of SC.

Based on the possible disadvantage for certain children, the present study also aimed at exploring the effects of social status on childrens' total social competence scores.

## Method

### Subjects

Data was collected for a total of 166 children. Eighty-six subjects comprised a general sample of primary school children (Group 1). This sample was taken from a larger study which looked at children's friendships, where the mother completed a CBCL. Thirty-four children had been referred to the Child and Family Unit for an assessment of their intellectual functioning by the special education teachers at six Catholic primary schools (Group 2). Each child was suspected of having learning difficulties or mental retardation. Forty-six children had been exposed to domestic violence (Group 3). Ten children were residing at a local women's shelter with their mothers and 36 children had been referred to the University of Southern Queensland Child and Family Unit for domestic violence support groups for children. The mean age of the total sample was 9.04 years, and the mean ages of Groups 1, 2 and 3 were 9.07, 8.62 and 9.30 years respectively. Overall there were 86 boys and 81 girls. Group 1 consisted of

45 boys and 41 girls, Group 2 consisted of 19 boys and 15 girls and Group 3 consisted of 22 boys and 25 girls.

In addition to this, Daniel's Prestige Scale was used to give each subject a social status score for their father's occupation, except in the cases where only the mother's occupation was given. For these cases it was assumed that it was a single parent family and therefore the social status score was based on the mother's occupation. Several cases had missing data for social status as some occupations are not listed in the Prestige Scale, such as homemaker/housewife. The mean social status score for the total sample was 4.77, and the mean social status scores for Groups 1, 2 and 3 were 4.08, 5.24 and 5.70 respectively. A high score on the Prestige scale indicates low social status and a low score, high social status.

### Materials

The Child Behaviour Checklist (Achenbach, 1991) was completed for each child. The CBCL is a standardised questionnaire completed by parents or caretakers of



children aged 4 to 18 years. It is presented in two parts. The first is a social competence scale designed to measure children's positive adaptive functioning in three areas: activities, social and school. Through these subscales, parents are asked to nominate the sports, hobbies, organisations, chores at home and friendships their child takes part in, and to estimate the amount and quality of these involvements. They are also asked how well their child gets on with parents, peers and siblings, how well he/she works and plays alone and the quality of the child's scholastic achievement. A child's social competence score is derived through the addition of these three subscales.

The second section of the CBCL contains 113 items describing a broad range of problem behaviours which the parent is asked to score on a three point scale (0 = not true; 1 = somewhat or sometimes true; 2 = very true or often true). The parent scores these items about their child for the past six months.

The 113 items are used to identify eight behaviour syndromes: Withdrawn, Somatic Complaints,



Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behaviour and Aggressive Behaviour. The CBCL also provides a T score for Internalising and Externalising problems. The Internalising score is derived by summing scores for the Withdrawn, Somatic Complaints and Anxious/Depressed syndrome scales while the Externalising score is derived by summing the Delinquent Behaviour and Aggressive Behaviour syndrome scales.

Inter-interviewer and test-retest reliabilities of the CBCL item scores are in the .90s. The test-retest reliability of CBCL scale scores is  $r = .87$  for the competence scales and  $.89$  for the problem scales over a 7 day period. The mean  $r$  over a one year period is  $.62$  for competence scales and  $.75$  for problem scales.

#### Procedure

The method of recruitment varied for each group. The CBCL's completed by mothers participating in the larger study of children's friendships, were given to children at school and mothers returned the CBCL's by

post in a reply paid envelope. The mothers of the learning difficulties children were sent a CBCL along with a general questionnaire as a part of background information required for their child's assessment. These were sent by post and returned by the mothers in a reply paid envelope. Mothers at the women's shelter were approached by one of the shelter workers and asked whether they would like to participate in a study about social competence in children. Recruitment of mothers to complete CBCL's was on a volunteer basis. After completing the checklist the mothers placed them in a sealed envelope and returned them to the shelter worker. CBCL's were collected from the shelter by the researcher. Each woman was informed as to the purpose of the study and was offered feedback on their child's CBCL if they so desired. Each participant signed a consent form which assured anonymity and confidentiality.

For each child a score was computed for the activities, social and school subscales and their total social competence score. Each child was also scored on

the eight syndrome scales of the CBCL.

## Results

### Group Differences

Multivariate analysis of variance was conducted for total SC score, the behaviour syndromes and internalising and externalising problems scales. Using Wilks' criterion, main effects were found for SC and the behaviour syndromes,  $F(18,310) = 5.20$ ,  $p < .001$ . A main effect was also detected for internalising and externalising problems,  $F(4,324)$ ,  $p < .001$ . The results of univariate analysis of variance are presented in Table 1. Tukey's Honestly Significant Difference for pairwise comparisons revealed that Groups 2 and 3 differed significantly from Group 1 on all scales except Withdrawn, Somatic Complaints and Delinquent behaviour. For these three scales Group 1 differed significantly from Group 3 only. Group 2 and Group 3 were significantly different on Withdrawn and Internalising problems. All pairwise differences were significant ( $p < .05$ ).

Table 1

Multivariate Analysis of Variance of Social Competence  
and the Behaviour Syndromes

Scale	MS Error	F	Sig of F
SC score	11.65	11.76	.000
Withdrawn	5.61	17.18	.000
Somatic	4.74	8.14	.000
Anx/Depressed	17.59	19.35	.000
Social Problems	5.16	18.86	.000
Thought Problems	1.74	21.34	.000
Attention	13.53	25.61	.000
Aggressive	48.03	14.61	.000
Delinquent	5.45	13.99	.000
Internalising	53.52	22.12	.000
Externalising	80.33	15.34	.000

Group means and standard deviations for each scale are presented in Table 2. Groups 2 and 3 scored higher on all of the behaviour scales than Group 1. Group 3 scored higher than Group 2 on all of the behaviour scales except social problems and attention problems.

Table 2

Group Means and Standard Deviations for the Behaviour  
Syndromes and Social Competence Scale of the CBCL

Scale	Group					
	1		2		3	
	M	SD	M	SD	M	SD
Withdrawn	1.88	1.89	2.97	2.71	4.41	2.86
Somatic	1.47	1.78	2.15	2.12	3.07	2.81
Anxious/Depressed	3.49	2.94	6.15	5.29	8.15	5.19
Thought	.43	.70	1.50	1.75	1.91	1.77
Social Problems	1.98	1.96	4.26	2.62	4.04	2.52
Attention	3.10	2.95	7.50	4.34	6.93	4.34
Aggressive	6.91	5.56	11.21	8.92	13.48	7.57
Delinquent	1.71	1.80	2.71	2.84	3.96	2.77
Internalising	6.84	5.28	11.26	8.78	15.63	9.20
Externalising	8.62	7.05	13.91	11.47	17.43	10.03
Social Competence	17.10	3.42	14.16	2.74	14.88	3.83



The Association Between Behaviour Problems and Social  
Competence

The associations between SC score and the behaviour scales were examined using Pearson's product-moment correlation. These correlations are presented in Table 3.

Table 3

Correlations Between Social Competence Score and Each of  
the Behaviour Syndrome Scales of the CBCL

Scale	Social Competence Score			
	Group			
	1	2	3	Total
Withdrawn	-.17	-.27	-.35*	-.33**
Somatic	.03	-.10	-.08	-.12
Anxious/Depressed	.01	-.03	-.29	-.23**
Social Problems	-.23*	-.32	-.53**	-.45**
Thought	-.16	-.19	-.28	-.32**
Attention	-.25*	-.25	-.43**	-.42**
Delinquent	-.24*	-.21	-.23	-.30**
Aggressive	-.25*	-.28	-.37*	-.37**
Internalising	-.05	-.13	-.30*	-.27**
Externalising	-.26*	-.27	-.34*	-.37**

\*  $p < .05$ .    \*\*  $p < .01$ .

For the total sample, there were significant negative correlations for the behaviour scales with SC score as well as internalising and externalising problems ( $p < .01$ ). Somatic complaints did not correlate significantly with SC score for any group. Although these correlations were significant they were also low. For Group 1, the correlations between SC score and social problems, attention, delinquent, aggressive and externalising problems were significant ( $p < .05$ ). For Group 2, no significant correlations were found between SC score and the behaviour scales. For Group 3 the correlations between withdrawn, social problems, attention problems, aggressive, externalising and internalising problems were significant ( $p < .05$ ). For the total sample, social problems yielded the highest correlations with SC score.

Following correlational analysis, stepwise regression was employed to regress the behaviour scales of the CBCL on SC score. This analysis was aimed at establishing which behaviour problems would reliably predict SC score. To avoid the effects of

multicollinearity, delinquent behaviour was not included in the regression analysis. Initially, internalising and externalising problems were not entered into the equation, also to avoid multicollinearity effects.

Table 4 displays the unstandardised regression coefficients ( $B$ ) and intercept, the standardised regression coefficients ( $\beta$ ), the semipartial correlations ( $sr^2$ ), and  $R$ ,  $R^2$ , and adjusted  $R^2$ , after entry of those variables which contributed significantly to the regression equation.

Table 4

Stepwise Regression of the CBCL Behaviour Scales on  
Social Competence Score

Variables	B	$\beta$	$sr^2$
Social Problems	-.42	-.29	.20**
Attention	-.18	-.21	.02*
Intercept = 18.10			
			$R^2 = .22$
			Adjusted $R^2 = .21$
			Multiple R = .47

\*  $p < .05$ .    \*\*  $p < .01$ .

Only two of the behaviour scales contributed significantly to the prediction of SC score, social problems ( $sr^2 = .20$ ) and attention ( $sr^2 = .02$ ). Together they accounted for 22% of the total variance in SC scores. No other behaviour scales contributed to the prediction of SC score. Social problems is a better

predictor of SC than any of the other behaviour scales.

Following this regression analysis, internalising and externalising were entered in the equation to predict SC score. Social problems and thought problems were also entered as they are the remaining variables after computation of internalising and externalising problems. The correlations between the variables, the unstandardised regression coefficients ( $B$ ) and intercept, the standardised regression coefficients ( $\beta$ ), the semipartial correlations ( $s_r^2$ ) and  $R$ ,  $R^2$  adjusted  $R^2$  after entry of those variables which contributed to the prediction of SC score are presented in Table 5.

Table 5

Stepwise Regression of Internalising, Externalising, Social Problems and Thought Problems on Social Competence Score

Variables	SC score	Social Probs	B	$\beta$	$sr^2$
Social Probs	-.45		-.65	-.45	.20**
Intercept = 17.83					$R^2 = .20$
					Adjusted $R^2 = .20$
					Multiple R = .45

\*\*  $p < .01$

Social problems remains the most significant predictor of SC score ( $sr^2 = .20$ ) when internalising, externalising and thought problems are entered into the equation,  $F(1, 164) = 40.61$ ,  $p < .01$ . This indicates that even when behaviour scales are grouped into internalising and externalising problems, social problems remains a better predictor of SC score.

Externalising behaviour approached significance  $p < .08$ .

#### The Effects of Social Status on Social Competence

One of the aims of the study was to investigate the effect of social status on a child's social competence score. As it has already been established that the groups do differ on social competence, the role of social status was investigated as a possible factor which might explain this group difference. Initially a univariate analysis of variance was conducted to detect any group differences for social status. Results indicated a main effect for group  $F(2, 163) = 42.67$ ,  $p < .001$ . Pairwise comparisons indicated that Groups 2 and 3 were significantly different from Group 1 ( $p < .05$ ) on social status, but that Groups 2 and 3 were not significantly different from each other.

As there was a difference between Group 1 and Groups 2 and 3 on social status, it was decided to investigate whether social status was a predictor of social competence scores. Stepwise regression was



conducted with internalising, externalising, thought problems, social problems and social status as the predictor variables and SC score as the dependent variable.

Table 6 displays the correlations between the variables, the unstandardised regression coefficients ( $B$ ) and intercept, the standardised regression coefficients ( $\beta$ ), the semipartial correlations ( $sr^2$ ), and  $R$ ,  $R^2$  and adjusted  $R^2$  after entry of those variables which contributed to the regression equation.

Table 6

Stepwise Regression of Behaviour Scales and Social Status on Social Competence Score

Variables	SC Score	Soc Probs	Soc Stat	B	$\beta$	$sr^2$
Soc Probs	-.45			-.57	-.39	.20**
Soc Stat	-.32	.38		-.64	-.20	.04*
Intercept = 20.58						
$R^2 = .24$						
Adjusted $R^2 = .23$						
Multiple R = .49**						

\*  $p < .05$ . \*\*  $p < .01$ .

Only social problems ( $sr^2 = .20$ ) and social status ( $sr^2 = .04$ ) contributed significantly to the prediction of SC. Together they accounted for 24% of the variability in SC score. Social problems again was a significant predictor of SC, however, when social status was introduced into the equation, its contribution to predicting SC was greater than that of the other variables.

### Discussion

The aim of the present study was to examine the validity of the SC scale of the CBCL. The first hypothesis, that children exposed to domestic violence (Group 3) and children underachieving academically (Group 2) would have more behaviour problems and lower social competence than a general sample of children (Group 1), received some support. Group 3 differed from Group 1 on all eight behaviour syndrome scales of the CBCL. However, Group 2 differed from Group 1 on only five of the behaviour syndromes: anxious/depressed, thought problems, attention problems, social problems and aggressive behaviour.

The second hypothesis, that there would be an association between behaviour problems and SC, is supported statistically. For the total sample, there is a significant negative correlation between SC and each of the behaviour syndromes except somatic complaints. These correlations are however, undeniably low. Lower SC is associated with higher scores on seven of the eight behaviour syndromes. There is also a significant

negative correlation between SC and internalising and externalising problems. Lower SC is associated with higher scores for internalising and externalising behaviour.

The final hypothesis that aggressive behaviour would be the best predictor of SC is not supported. Social problems is a better predictor of SC than aggressive behaviour.

In exploring the effect of social status on SC, it was found that social status was a better predictor than externalising or internalising behaviours.

Validity of the SC scale is demonstrated only in its ability to discriminate between groups. The weak associations between the behaviour syndromes and SC, the failure of aggression to predict SC, and the contribution of social status, provide minimal validation of the SC scale.

#### Group Differences

Group differences found in previous research are also found in the present study. The results are

consistent with previous findings that children from violent homes display more behaviour problems and lower SC than normal children (Wolfe, Jaffe, Wilson and Zak, 1985). The results are also consistent with the study by Fantuzzo et al. (1991) where children from violent homes displayed a higher number of internalising and externalising behaviour problems and also lower SC than children from non-violent homes.

This study is also consistent with literature which indicates that children who are learning disabled or low achieving display a higher number of behaviour problems and lower SC than normal children (Merrel, 1991; Sater & French, 1989).

The fact that Group 3 differed from Group 1 on all of the behaviour syndromes and Group 2 differed on only five, is likely to be a function of the problems presented by these groups. Group 3 was primarily comprised of children exposed to domestic violence who had been referred for therapy, while the children in Group 2 had been referred for an assessment of their academic functioning. Considering the trauma

experienced, violence witnessed and that their behaviour is seen as warranting therapy, it is probable that children in Group 3 display more problem behaviours than children at the assessment stage for academic underachievement. This is varified by the finding that Group 3 scored higher than Group 2 on both internalising and externalising problems.

#### The Association Between Behaviour Problems and Social Competence

As already indicated, the present findings provide some evidence for the validity of the SC scale of the CBCL. Although previous research has illustrated an association between behaviour problems and SC, the statistical relationship between these two variables as measured on the CBCL, has not been examined. When investigated, evidence of the association is weak. This may be taken to disconfirm previous research or indicate that the SC scale of the CBCL is not a valid measure of this construct. Clearly, the causal relationship between behaviour problems and SC needs to be

investigated, rather than the correlational relationship.

An association between behaviour problems and SC suggests that one should be able to predict a child's SC or incompetence from knowledge of his/her specific behaviour problems. The question which arises relates to which behaviour problems might be the best predictors of SC. Previous studies have found that aggressive behaviours in particular may contribute to social incompetence (Dodge, 1983; Dodge et al. 1986). In this study, it was found that out of the eight behaviour scales, social problems was the best predictor of SC and that attention problems also added to the prediction. The amount of variance accounted for however, was low.

In retrospect, it seems logical that the social problems scale is a good predictor of SC. Examination of this scale reveals some items which are very similar to items in the SC scale of the CBCL. For example, the similarity between "not liked by other kids" and "doesn't get along with other kids" from the social problems scale and "how well does your child get along

with other kids" from the SC scale. It is likely that this similarity largely explains the predictive capacity of the social problems syndrome.

When internalising and externalising problems are used as predictors instead of the separate behaviour scales, social problems is still the better predictor. Considering the possible reason for the predictive power of social problems, it is interesting to note that externalising problems approached significance as a predictor of SC. This suggests that when treated as a group of problems, externalising behaviour is a better indicator of SC than aggressive or delinquent behaviour alone. It also appears evident that internalising behaviours whether examined separately, or as a group, are not good predictors of SC. This is not surprising when it is taken into consideration that SC is usually judged by another, and in this instance, the child's mother. Those behaviours which are associated more strongly with, and are better predictors of SC, appear to be salient undesirable behaviours. Children with internalising problems are perhaps less likely to be



judged socially incompetent as their behaviours are less observable than a child with externalising problems.

#### The Effects of Social Status on Social Competence

One of the aims of the study was to investigate whether social status contributes to SC. It was suggested that children may be disadvantaged on the SC scale of the CBCL because of a relative lack of opportunity rather than lower social competence per se. This suggestion was thought to be a possible explanation for the finding that both Group 2 and 3 had lower social status and lower social competence than the general sample.

Results indicate that social status is a better predictor of SC than externalising behaviour or internalising behaviour. Although the relative contribution of social status is small, it is interesting to note that externalising behaviour did not make a contribution to the prediction when social status was not in the regression equation.

The contribution of social status has significant

implications in the interpretation of the SC scale of the CBCL. If social status contributes to a child's SC score, then it is possible that children receive low scores and are labelled socially incompetent unjustly. A child should not be disadvantaged in his/her score on the SC scale because of a lack of opportunity to be involved in more sports, activities or hobbies than a child who has these opportunities.

An issue which arises from this finding, relates to the construct of SC. Those questions which have the potential for disadvantaging a child are only apparent in the activities and social subscales of the SC scale. It appears that there is need to review these types of items as indicators of SC, and consequently their ability to measure the construct of SC. This idea would aid in the explanation of the findings of Tanaka et al. (1988), where physical and activities items were not represented in interbattery factor analysis for SC. Findings from the present study provide sufficient evidence to warrant further investigation of the role of social status in developing measures of SC.

The focus of future research should clearly be on establishing construct validity for the SC scale of the CBCL, however the unavailability of measures of SC is a clear obstacle in this area of research.

### Summary

Results of the present study provide little validation of the SC scale of the CBCL. It is evident from this study that SC scores on the CBCL differentiate between groups of children expected to have low or adequate SC. Although this finding confirms Achenbach's validation of the scale, it has already been highlighted that this is not sufficient. The weak associations between behaviour syndromes, the failure of aggression to predict SC and the contribution of social status, all raise questions as to the validity of the SC scale.

Although the validity of the scale has been found to be questionable, a larger issue arises from these results. It has already been highlighted that there is inconsistency in the definitions of SC. When this is taken into consideration, the possibility is apparent

that lack of definition is a confounding factor in assessing the validity of the SC scale of the CBCL. Achenbach's conceptualisation of SC may differ to the conceptualisation of other researchers in this area. This may account for the weak associations between behaviour syndromes and SC and the minimal predictive capacity of these syndromes. The importance of assessing the actual construct is therefore essential to further validation of this scale.

Until a clear and concise conceptualisation of SC is reached, a child's score on the SC scale of the CBCL should be interpreted cautiously.

References

- Achenbach, T. M. (1991). Manual for the Child Behaviour Checklist / 4-18 and 1991 profile. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T. M., & Edelbrock, C. S. (1981). Behaviour 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).
- Achenbach, T. M., & Edelbrock, C. S. (1983). Manual for the Child Behaviour Checklist and Revised Child Behaviour Profile. Burlington, VT: University of Vermont Department of Psychiatry.
- Anderson, S., & Messick, S. (1974). Social competency in young children. Developmental Psychology, 10, 282-293.
- Asher, S. R. (1978). Children's peer relations. In M. E. Lamb (Ed.). Social & personality development. New York: Holt, Rinehart & Winston.

- Barkley, R. (1987). The assessment of attention deficit hyperactivity disorder. Behavioural Assessment, 9, 207-233.
- Compas, B. E., Phares, V., Banez, G. A., & Howell, D. C. (1991). Correlates of internalising and externalising behaviour problems: Perceived competence, causal attributions and parental symptoms. Journal of Abnormal Child Psychology, 19, 197-218.
- Conger, J. C., & Keane, S. P. (1981). Social skills intervention in the treatment of isolated or withdrawn children. Psychological Bulletin, 3, 478-495.
- Daniel, A. (1983). Power, privilege and prestige occupations in Australia. Melbourne: Longman Chesie.
- Dodge, K. A. (1983). Behavioural antecedents of peer social status. Child Development, 54, 1386-1399.

- Dodge, K. A., Pettit, G. S., McClaskey, C. L., & Brown, M. M. (1986). Social competence in children. Monographs of the Society for Research in Child Development, 51(2, serial no. 213).
- Fantuzzo, J. W., DePaola, L. M., Lambert, L., Martino, T., Anderson, G., & Sutton, S. (1991). Effects of interparental violence on the psychological adjustment and competencies of young children. Journal of Consulting & Clinical Psychology, 59, 258-265.
- Foster, S. L., & Ritchey, W. L. (1979). Issues in the assessment of social competence in children. Journal of Applied Behaviour Analysis, 12, 625-638.
- Goldfried, M. R., & d'Zurilla, T. J. (1969). A behavioural-analytic model for assessing competence. In C. D. Spielberger (Ed.), Current topics in clinical and community psychology, (pp 151-196). New York: Academic Press.
- Gresham, F., & Elliott, S. (1984). Advances in the assessment of children's social skills. School Psychology Review, 13, 292-301.

- Harter, S. (1982). The perceived competence scale for children. Child Development, 53, 87-97.
- Hartup, W. W. (1978). Peer relations and the growth of social competence. In M. Kent & J. Rolf (Eds.). Social competence in children. Hanover, NH: University of New England.
- Hartup, W. W. (1989). Social relationships and their developmental significance. American Psychologist, 44, 120-126.
- Hinton, G. G., & Knights, R. M. (1971). Children with learning problems: Academic history, academic prediction, and adjustment three years after assessment. Exceptional Children, 37, 513-519.
- Jaffe, P., Wolfe, D., Wilson, S. K., & Zak, L. (1986). Family violence and child adjustment: A comparative analysis of girls' and boys' behavioural symptoms. American Journal of Psychiatry, 143, 74-76.
- Kohn, M. (1977). Social competence, symptoms and underachievement in childhood: A longitudinal perspective. Washington: Wiley.



- Ladd, G. (1981). Effectiveness of a social learning method for enhancing children's social integration and peer acceptance. Child Development, 52, 171-178.
- McCarthy, J. M., & Paraskevopoulos, J. (1969). Behaviour patterns of learning disabled, emotionally disturbed and average children. Exceptional Children, 36, 69-74.
- McConnell, S. R., & Odom, S. L. (1986). Sociometrics: Peer-referenced measures and the assessment of social competence. In P. Strain, M Guralnick, & H. Walker (Eds.), Children's social behaviour: Development, assessment and modification, (pp. 215-286). New York: Academic Press.
- McFall, R. M. (1982). A review and reformulation of the concept of social skills. Behavioural Assessment, 4, 1-35.
- McKinney, J. D., & Feagans, L. (1983). Disruptive classroom behaviour of learning disabled students. Journal of Learning Disabilities, 16, 360-367.

- McKinney, J. D., & Mason, J., Perkerson, K., & Clifford, M. (1975). Relationship between classroom behaviour and academic achievement. Journal of Educational Psychology, 67, 198-203.
- Merrel, K. W. (1991). Teacher ratings of social competence and behavioural adjustment: Differences between learning-disabled, low-achieving and typical students. Journal of School Psychology, 29, 207-217.
- Odom, S. L., & Ogawa, I. (1992). Direct observation of young children's social interaction with peers: A review of methodology. Behavioural Assessment, 14, 407-441.
- Putallaz, M., & Gottman, J. M. (1981). An interactional model of children's entry into peer groups. Child Development, 52, 986-994.
- Sater, G. M., & French, D. C. (1989). A comparison of the social competencies of learning disabled and low achieving elementary-aged children. Journal of Special Education, 23, 29-42.

- Spence, S. (1991). Developments in the assessment of social skills and social competence in children. Behaviour Change, 8, 148-166.
- Spence, S. H., & Liddle, B. (1990). Self-report measures of social competence for children: An evaluation of the Matson Evaluation of Social Skills for Youngsters and the List of Social Situation Problems. Behavioural Assessment, 12, 317-336.
- Strain, P. S., Guralnick, M. J., & Walker, H. M. (Eds.). (1986). Children's social behaviour: Development, assessment and modification. London: Academic Press.
- Tanaka, J. S., & Westerman, M. A. (1988). Common dimensions in the assessment of competence in school-aged girls. Journal of Educational Psychology, 80, 579-584.
- Trower, P. (1982). Toward a generative model of social skills: A critique and synthesis. In J. P. Curran & P. M. Monti (Eds.). Social skills training, (pp 399-428). New York: Guilford.

- Walker, H. M., Irvin, L. K., Noell, J., & Singer, G. H. (1992). A construct score approach to the assessment of social competence. Behaviour Modification, 16, 448-474.
- Waters, E., & Sroufe, L. A. (1983). Social competence as a developmental construct. Developmental Review, 3, 79-97.
- Wine, J. D., & Smye, M. D. (1981). Social competence. New York: Guilford Press.
- Wolfe, D. M., Jaffe, P., Wilson, S. K., & Zak, L. (1985). Children of Battered Women: The relations of child behaviour to family violence and maternal stress. Journal of Consulting & Clinical Psychology, 53, 657-665.
- Wolfe, D. A., Zak, L., Wilson, S., & Jaffe, P. (1986). Child Witnesses to violence between parents: Critical issues in behavioural and social adjustment. Journal of Abnormal Child Psychology, 14, 95-104.