MATERNAL BELIEFS

AND

INTERNALIZING DIFFICULTIES IN EARLY CHILDHOOD

By

Wendy M. F. Shin

A Thesis

Submitted to the Faculty of Graduate Studies

in Partial Fulfillment of the Requirements

for the Degree of

MASTER OF SCIENCE

Department of Family Studies
Faculty of Human Ecology
University of Manitoba
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- Modern 0582
- Church 0330
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- Entomology 0353
- Genetics 0369
- Limnology 0793
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- Molecular 0307
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- General 0786
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Physical Oceanography 0415

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- Mental Health 0347
- Nursing 0569
- Nutrition 0570
- Obstetrics and Gynecology 0380
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- Oncology 0992
- Ophthalmology 0381
- Pathology 0571
- Pharmacology 0419
- Pharmacy 0572
- Public Health 0573
- Radiology 0574
- Recreation 0575
- Rehabilitaion and Therapy 0382
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- Toxicology 0383

Home Economics 0386

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- Biochemistry 0487
- Inorganic 0488
- Nuclear 0738
- Organic 0490
- Pharmaceutical 0491
- Physical 0494
- Polymer 0495
- Radiation 0754

Mathematics 0405
Physics
- General 0605
- Acoustics 0986
- Astronomy and Astrophysics 0606
- Atmospheric Science 0608
- Atomic 0748
- Condensed Matter 0611
- Electricity and Magnetism 0607
- Elementary Particles and High Energy 0798
- Fluid and Plasma 0759
- Molecular 0609
- Nuclear 0610
- Optics 0752
- Radiation 0756

Statistics 0463

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Applied Mechanics 0346
Computer Science 0984
Engineering
- General 0537
- Aerospace 0538
- Agricultural 0539
- Automotive 0540
- Biomedical 0541
- Chemical 0542
- Civil 0543
- Electronics and Electrical 0544
- Environmental 0775
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- Marine and Ocean 0547
- Materials Science 0794
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- Packaging 0549
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WENDY M.F. SHIN

A Thesis/Practicum submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements for the degree of

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Abstract

This study replicated an earlier study (Rubin & Mills, 1990) that provided initial evidence to suggest that the development of internalizing behaviours may be associated with a pattern of parental beliefs in which the child's behaviour is attributed to traits, viewed negatively, and approached directively. Parent questionnaires were distributed to 6 mothers of internalizing children and 21 mothers of socially average children. These two groups of mothers were compared with respect to the importance assigned to each of four modes of learning social skills, the intensity of nine emotions in reaction to unskilled social behaviours, the attribution of unskilled social behaviours to each of five types of causal reasoning, and the choice of each of three types of strategies in dealing with unskilled social behaviours. Although differences were found in mothers' emotional reactions to aggression and withdrawal, only two of these differences (embarrassment and guilt) replicated the original findings. Although mothers of internalizing children made more trait attributions than those of socially average children, they were specific to social withdrawal, rather than generalized attributions. No group differences were found in the importance assigned to directive teaching or in the choice of directive methods for dealing with aggressive and withdrawn behaviours. In sum, the original findings were not replicated.

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I am forever grateful to God for His unfailing Love. Proverbs 9:10, "The fear of the Lord is the beginning of wisdom: and the knowledge of the holy is understanding."

TABLE OF CONTENTS

List of Tables

Introduction

The following is a letter to a psychologist:

I am a former elementary school teacher and I am very aware of the importance of a child's readiness in all areas--social as well as academic, physical, and emotional.

My daughter and I have never been close. She was one who as a baby would stop crying when I set her on the floor instead of cuddling her. I gave up my career to do special things with her and we oftentimes clash. She prefers doing things alone instead of playing cards with me or other game-like involvement.

We had her repeat kindergarten for social reasons only. She would oftentimes say things like "Susie isn't nice to me." Last March on her own she told me she did not want to go to first grade. She is very passive at school, does not want group attention, prefers to play alone but likes to watch others play (she looks like she wants to be a part of the group but doesn't know how).

I feel that Julie was born this way. This is not because I don't want to blame myself. But this all started when she was a toddler. She was very independent around both of us. My husband is a very close participating member of the family. I know this is hard for you to give any suggestions without knowing

> our family but we are very close knit and happy. We have real need to help our daughter Julie because I feel it will get much worse for her when she's in school in the fall the whole day. (Rubin & Asendorpf, 1993, pp. 3-4)

This letter illustrates some of the concerns that parents feel when their children manifest "internalizing" difficulties. These difficulties are a constellation of related problems such as anxiety, depression, loneliness, low self-esteem, and social withdrawal. They have negative, long-term developmental consequences for children (see Caspi, Bem, and Elder, 1989; Hymel, Rubin, Rowden, & LeMare, 1990; Rubin, 1993) and, therefore, are problems worthy of study.

Theories have been proposed which suggest that internalizing difficulties in children have a number of different causes, one of which may be the kind of parenting children receive (see Rubin, LeMare, & Lollis, 1990; Rubin & Lollis, 1988). Childrearing is thought to influence the quality of the parent-child relationship and, through this, the child's social and emotional development. Parents' beliefs about their children, and the personal and social resources they bring to the task of parenting, may be important determinants of the childrearing patterns that influence the child's development (e.g., Sigel, 1992).

While there has been some research on the style of

parenting that may be associated with the development of internalizing difficulties (e.g., Baumrind, 1967,1971; Baumrind & Black, 1967; LaFreniere & Dumas, 1992), it is not clear what this style is, or how parents whose children have these difficulties may differ from other parents in their beliefs about childrearing. The present thesis will attempt to address this gap in the literature.

Following some discussion of the nature and significance of internalizing difficulties, I will describe the major theoretical perspectives relevant to the understanding of internalizing difficulties. I will then describe a comprehensive model which has been proposed to account for their development was described. Next, a study will be described which was guided by the model and which examined the role of parental beliefs (Rubin & Mills, 1990). The objective of this thesis is to replicate this study.

Nature and Significance of Internalizing Difficulties

Internalizing difficulties seem, on the face of it, to be quite different from externalizing problems such as aggression, attention deficit disorder with hyperactivity, conduct disorder, disruptiveness, and impulsivity. Indeed, there is a good deal of evidence to indicate that these two categories of children's socioemotional problems are distinct (Achenbach, 1978; Achenbach & Edelbrock, 1981, 1979, 1978).

Achenbach (Achenbach, 1978; Achenbach and Edelbrock,

1979) provided strong evidence for this in two studies of boys and girls between 6 and 11 years of age. Parents completed a checklist of behaviour problems, known as the Child Behaviour Checklist (CBCL). Through factor analysis, it was found that behaviour problems fell into two distinct categories. Problems such as schizoid tendencies, depression, obsessive-compulsiveness, somatic complaints, and social withdrawal loaded on one factor, labelled "Internalizing", and behaviour problems such as hyperactivity and aggression loaded on a second factor, labelled "Externalizing."

There is some evidence to suggest that these two types of problems are not only distinctly different but also somewhat mutually exclusive; that is, children tend to develop one type of problem rather than the other. This conclusion is based on studies of the comorbidity of internalizing and externalizing problems; that is, the co-occurrence of two or more disorders in the same individual at a given point in time (e.g., Achenbach, 1995). The comorbidity between these two types of problems appears to be lower than the comorbidity within them. For example, Strauss, Forehand, Smith, and Frame (1986) found that 7-to 10-year-old children with social withdrawal tended to exhibit poorer self-concepts and difficulties with peer relations, and to be more depressed and anxious than their sociable peers, but they did not exhibit significant rates

of aggression or conduct disorder. Children with anxiety disorder tended to display withdrawal rather than externalizing symptoms (Werry et al., 1987).

Similarly on the externalizing side, children with attention deficit disorder with hyperactivity (ADHD) are more likely to have other externalizing disorders (aggression, oppositional defiant disorder, conduct disorder) than they are to have internalizing problems (Barkley, Anastopoulos, Guevremont, & Fletcher, 1991; Barkley, Dupaul, & McMurray, 1990; Fergusson, Horwood, & Lloyd, 1991; Reeves, Werry, Elkind, & Zametkin, 1987; Werry, Reeves, & Elkind, 1987). Fergusson et al. (1991) found a correlation of .88 between ADHD and conduct disorder. Reeves et al. (1987) found both conduct and oppositional disorders tended to co-occur with ADHD. Recent comorbidity estimates for conduct disorder and depression among children ranged from 8% to 37% (Garber, Quiggle, Panak, & Dodge, 1991), in comparison to the relatively higher rates of comorbidity for depression and anxiety, which ranged from 16% to 62% (Brady & Kendall, 1992).

Taken together, then, the evidence suggests that there may be a closer association among than between internalizing and externalizing difficulties and that the two classes of socioemotional difficulties are not only distinct but also somewhat contrasting.

The long-term developmental significance of

internalizing difficulties has also been established. Early studies had cast doubt on their significance (see Kohlberg, LaCrosse, and Ricks, 1972 for a review). The assumption made in these early studies was that antisocial behaviour should be predictive of criminal and sociopathic outcomes; indeed, the evidence bore this out (Kohlberg et al., 1972). On the internalizing side, the assumption was that a withdrawn, introverted, or shy personality would be predictive of later psychosis (where emotional disturbance is associated with thought disorder; e.g., schizophrenia, manic depression). In their review of the evidence, Kohlberg et al. (1972) found no such predictive relation. Although a significant number of adult schizophrenics were withdrawn in childhood, the percentage of extremely withdrawn children who actually became psychotic was very small. Hence, it was concluded that internalizing difficulties in childhood were not predictive of adult maladjustment.

When outcomes other than psychosis have been studied, however, a different conclusion has been drawn. For example, in early childhood social withdrawal was found to be associated with nonclinical childhood anxiety and depression (Rubin, 1993). In second-graders, social difficulties such as social isolation, poor peer acceptance, and perceptions of social incompetence were significantly related to teacher ratings of internalizing difficulties

three years later (Hymel, Rubin, Rowden, & LeMare, 1990).

Further evidence that long-term negative consequences ensue from internalizing difficulties was provided by Caspi, Bem, and Elder (1989). They identified individuals who were shy in late childhood and traced the continuity of this interactional style across the subsequent 30 years of their lives. They were interested in finding out whether shy children become shy adults. The longitudinal data was obtained from the archives of the Berkeley Guidance Study, an ongoing study initiated in 1928 with an initial sample of 214 subjects resulting from every third birth in the city of Berkeley over a period of 18 months. Childhood assessments of shyness at ages 8, 9, and 10 years were obtained from clinical interviews with mothers of the subjects. Adolescent and adult data assessing the life-course patterns of subjects were obtained in junior and senior high school and at 30 and 40 years of age.

The study revealed that shy boys became adults who were described as aloof, lacking in social poise, bothered by demands, withdrawn when frustrated, and showing a reluctance to act. These men were delayed in marrying, becoming fathers, and establishing stable careers (Caspi et al., 1989). Shy girls became women who were reluctant to act and withdrew when frustrated; they were not, however, delayed in entering marriage or starting families. These women were much more likely than other women to have had no work

history at all or to have ended employment at marriage or childbirth with no later reentry into the labour force (Caspi et al., 1989). Shy women, perhaps as a result of their childhood shyness, seemed to follow a conventional pattern of marriage, childbearing, and homemaking rather than venture into employment outside the home.

These findings suggest that the long-term negative consequences of childhood shyness may be worse for men than for women. Caspi et al. (1989) attempted to explain this in terms of culturally-based sex-role prescriptions. They suggested that sex roles require men to initiate courtship; hence, shyness may be associated with delayed timing of marriage in men but not in women. Conversely, the shy disposition of women may have been congruent with their prescribed sex roles, and hence associated with fewer negative consequences. Thus, although internalizing behaviours appear to have long-term negative developmental consequences, the nature and severity of these effects may depend on the cultural context in which development occurs.

To summarize, it has been argued in this section that internalizing difficulties are distinguishable from externalizing difficulties and are developmentally significant. Given their significance, an important question concerns what causes internalizing behaviours to develop. Several theoretical perspectives are relevant to this question.

The Causes of Internalizing Difficulties

There are a number of different theoretical perspectives on the development of internalizing difficulties. They range from those which have emphasized the role of biology to those which have emphasized the role of socialization.

The Role of Biology

Biological explanations for the development of internalizing difficulties can be traced back at least as far as Eysenck's early work on the personality continuum of introversion-extroversion. Eysenck (1967) described the introvert as highly controlled and inhibited, in contrast to the extrovert, whom he described as changeable, excitable, ill-tempered, and active (Eysenck, 1967).

Eysenck (1982, 1967) emphasized the importance of genetically-determined cortical arousal levels in determining these personality traits. According to Eysenck, the main function of the cortex is to moderate the arousal of lower centres. Generally, the more aroused the cortex, the stronger the inhibitory function it plays, i.e., the more it exerts an inhibitory effect on behavioural responses. Some individuals have high levels of arousal and tend to be inhibited, while others have low levels of arousal and tend to be uninhibited.

A related line of work is that of Kagan and his colleagues (Garcia-Coll, Kagan, & Reznick, 1984; Kagan,

1988; Kagan, Reznick, Clarke, Snidman, & Garcia-Coll, 1984; Kagan, Reznick, & Gibbons, 1989; Kagan, Reznick, & Snidman, 1987; Kagan, Reznick, & Snidman, 1990; Kagan, Reznick, Snidman, Gibbons, & Johnson, 1988; Kagan, Snidman, & Arcus, 1993). This research had its beginnings in the Fels Institute's longitudinal project on the long-term stability of behaviour, which began in the early 1930s and continued until 1962 (Kagan & Moss, 1962). The sample consisted of 36 males and 35 females who were enrolled in the project at birth, during the period between 1929 and 1939. During the first 14 years, the children were observed in various contexts. They were studied again when they were between 20 and 29 years of age, at which time a five-hour interview was conducted. It was found that children whose mothers had been highly protective toward them lacked assertiveness and were more compliant and dependent as adults (Kagan & Moss, 1962). It was also found that achievement behaviour was stable in both sexes, that childhood aggression predicted adult aggression in men only, and that childhood passive-dependent behaviour predicted adult passive-dependent behaviours in women only (Moss & Kagan, 1964).

Kagan and his colleagues have attributed these stable individual differences to a difference in nervous system arousal resulting from the excitability of the hypothalamus. Children with a low threshold of arousal were described as having an "inhibited" temperament because of the high

reactivity of their sympathetic nervous system and consequent high level of anxiety. Children with a high threshold of arousal were described as having an "uninhibited" temperament because of the low reactivity of their sympathetic nervous system and consequent low level of anxiety.

There is strong evidence for the stability of individual differences in temperamental inhibition (e.g., Fox, 1989; Kagan et al., 1993; Stifter & Fox, 1990). Fox (1989) and Stifter and Fox (1990) have shown that individual differences on this dimension are stable during the first year of life. They measured temperamental inhibition by assessing infants' reactions to pacifier withdrawal at birth and their reactions to arm restraint at five months. Infants who cried to pacifier withdrawal at birth were more likely to cry to arm restraint at five months than those who did not cry to pacifier withdrawal at birth. Kagan and his colleagues (e.g., Kagan et al., 1993) followed children from 21 months of age until seven-and-a-half years of age. On the basis of telephone interviews with mothers of 305 21-month-olds, 56 infants were classified as inhibited, 104 as uninhibited, and 145 as neither. Of the 160 infants classified as inhibited or uninhibited, 117 visited the laboratory, where their behaviour toward unfamiliar people and objects was videotaped. Of these 117 infants, 28 consistently exhibited signs of behavioural inhibition and

30 consistently showed a lack of inhibition. On the basis of these findings, Kagan suggested that approximately 10% to 15% of the population may be born with a temperamental disposition favouring inhibition and another 10% to 15% may be born with a temperamental disposition favouring lack of inhibition.

Most of the children classified as extremely inhibited or uninhibited retained their inhibition or lack of inhibition as they grew older. At 21 months, the 28 inhibited children tended to remain within close proximity to their mother, to display occasional anxiety, and to withdraw from a female stranger and an unfamiliar toy, while the 30 uninhibited children played apart from their mother and approached the unfamiliar stranger and toy. At five-and-a-half years, 24 inhibited and 22 uninhibited children returned to the laboratory. Inhibited children spent significantly more time close to their mother in the peer play session, were reluctant to interact with but stared more at the unfamiliar peer, remained quiet in a testing situation, and were often isolated from their classmates in their kindergarten classroom, while their uninhibited counterparts initiated contact with peers, were vocal and expressive with an examiner, and were often engaged in social interaction with classmates.

At seven-and-a-half years, 22 inhibited and 19 uninhibited children returned to the laboratory. As

predicted, inhibited children spent significantly more time standing or playing apart from a peer during the free-play intervals, talked significantly less often during the entire free-play session, and spoke significantly later and less often in the testing session. Kagan and his colleagues found that about 50% of inhibited 21-month olds continued to exhibit inhibited behaviours at seven-and-a-half years, and over 75% of uninhibited 21-month olds continued to exhibit uninhibited behaviours at seven-and-a-half years.

Kagan and his colleagues suggested that whether the biological tendency towards shyness is actualized or not may depend on the environment. Some children will not remain shy because temperamental qualities are modifiable and it is possible for children to learn to control their initial disposition. An exceptionally caring and loving environment may create a sociable child from one who was born with an inhibited temperament, whereas a chronically stressful environment may create a behaviourally inhibited child from one who was born with a temperamental disposition which favoured lack of inhibition (Kagan & Reznick, 1986). In the following section, the role of the child's socialization experiences is examined more closely.

The Role of Socialization

Emotional security. The emotional security children develop in early childhood will likely influence their subsequent socioemotional development. Attachment theorists

propose that the parent-child attachment relationship results in the child's development of an "internal working model" (Bowlby, 1973) of the attachment, which is derived from the pattern of interactions with the parent. This mental model is comprised of beliefs about the availability and responsiveness of the parent and complementary beliefs about the worth and acceptability of the self. This model of the attachment relationship guides interpretations and reactions in social interaction, and hence has an impact on socioemotional adjustment.

There is, indeed, some evidence that an insecure attachment leads to the development of socioemotional difficulties (Erikson, Sroufe, & Egeland, 1985; LaFreniere & Sroufe, 1985; Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989; Sroufe, Fox, & Pancake, 1983; Troy & Sroufe, 1987). Some insecure children appear to develop internalizing difficulties. For example, LaFreniere and Sroufe (1985) found that 4-to-5 year old girls who, as infants, were classified "insecure-resistant" according to Ainsworth's typology of attachments (Ainsworth, Blehar, Waters, & Wall, 1978), tended to be more submissive, passive, withdrawn, and neglected by their peers than girls who, as infants, were classified as either "insecure-avoidant" or "secure." They found that 4-to-5 year old girls who, as infants, were classified "insecure-avoidant" tended to express more negative assertive behaviour and, as

a result, were more often rejected by their peers than 4-to-5 year old girls who, as infants, were classified as either "insecure-resistant" or "secure" (LaFreniere & Sroufe, 1985).

Similarly, Erikson, Sroufe, and Egeland (1985) found that children who were anxiously attached as infants functioned more poorly in preschool than did children who were securely attached. Specifically, they found that 4-to-5 year old children who were insecure-resistant as infants tended to be incompetent in their interactions with peers and functioned poorly in preschool. They were rated by observers in preschool as lacking "agency" (efficiency/competence), confidence, and assertiveness. They were also rated as having poorer social skills than their securely attached peers. Children who were insecure-avoidant as infants were observed to be highly dependent, noncompliant, and poorly skilled in social interaction with peers. These children were described by teachers as hostile, impulsive, giving up easily, and withdrawn (Erikson et al. 1985).

What factors determine whether a child develops a secure or insecure attachment? Parental responsiveness undoubtedly plays an important role. According to Ainsworth et al. (1978), a secure attachment depends on the parent's ability to provide sensitive-responsive caregiving. Ainsworth defined the sensitive-responsive parent as one who

is able to see things from the infant's point of view, who is alert to the infant's cues, interprets them accurately and responds appropriately and promptly, and who acknowledges the infant's communication. When parents respond sensitively, the child learns that the parent is available and responsive, and experiences a sense of control over the environment; the child develops, in other words, a sense of emotional security. Indeed, Ainsworth et al. (1978) found that mothers of secure infants were sensitively responsive parents.

Thus, from the perspective of attachment theory, it is possible to view internalizing difficulties as resulting from a sense of emotional insecurity originating from a lack of sensitive responsiveness on the part of parents. Additional insight into the patterns of insensitive parenting that might contribute to the development of internalizing difficulties has been provided by research on parenting styles.

Parenting style. There is some evidence that internalizing difficulties may be associated with authoritarian parenting (Baumrind, 1967, 1971; Baumrind & Black, 1967; de-Man, Labreche-Gauthier, & Leduc, 1991, 1993; Dunn, Stocker, & Plomin, 1991; Gjerde, Block, & Block, 1991; LaFreniere & Dumas, 1992; Thompson, Lamphron, Johnson, & Eckstein, 1990; Zemore & Rinholm, 1989). For example, a series of studies by Baumrind revealed that children

characterized as discontented, withdrawn, distrustful and dependent, tended to have parents who were controlling, punitive, and unaffectionate (Baumrind, 1967, 1971; Baumrind & Black, 1967).

Baumrind's (1967) first sample consisted of 32 three- and four-year-olds, selected from among 110 children enrolled at a child study centre in the University of California, Berkeley. After 14 weeks of observation by both a psychologist and the nursery school teacher, the 110 children were assessed on 5 dimensions: self-control, approach-avoidance tendency, self-reliance, subjective mood, and peer affiliation. On the basis of multiple measures such as home visits, structured observation, and structured interviews, children were classified into three groups: "Pattern I children," who were self-reliant, self-controlled, explorative, and content (labelled "competent and mature"); "Pattern II children," who were discontent, withdrawn, and distrustful (labelled "withdrawn"); and "Pattern III children," who had little self-reliance or self-control and tended to retreat from new experiences (labelled "immature") (Baumrind, 1967).

Parents of Pattern I children were found to be consistent, conscientious, loving and secure in handling their children. They combined nurturance, control, and demands with clear communication regarding what was expected of the child. Baumrind labelled these parents

"authoritative" in their style of parenting. Parents of Pattern II children were found to be more controlling and less nurturant or involved with their children than other parents. They exerted firm control and used power freely, but offered little support or affection. Baumrind characterized these parents as "authoritarian." Finally, parents of Pattern III children were less intensely involved with their children than authoritative parents, ineffective in running their households, and insecure about their ability to influence their children; they used love manipulatively, babied their children, and demanded little of their children. Baumrind labelled these parents "permissive" in their style of parenting.

These findings are often cited as suggesting that internalizing difficulties such as withdrawal may be associated with authoritarian parenting. Other studies support the association. Zemore and Rinholm (1989) found that depression-proneness in female undergraduates was associated with perceptions of an intrusive and controlling mother. More valid, retrospective data was obtained by Gjerde, Block, and Block (1991), who found a significant correlation between the quality of parenting experienced in early childhood and symptoms of depression 13 years later. Specifically, mothers of 18-year-old girls with depressive symptoms received, 13 years earlier, relatively high scores on authoritarian control. McCord, McCord, and Howard (1961)

found that nonassertive school-age boys had mothers who were overcontrolling, who insisted that they be close at all times, and who required submission; these mothers were directive and intruded upon all aspects of their child's activities.

Other studies found that internalizing and/or externalizing difficulties are intercorrelated with controlling parenting (Campbell, Breaux, Ewing, & Szumowski, 1986; Dunn et at., 1991; Hymel et al., 1990; LaFreniere et at., 1992, 1995). For example, Campbell et al. (1986) found that observed negative child behaviour such as aggression and hyperactivity and controlling maternal behaviour were reciprocal and highly intercorrelated.

In another study conducted in early childhood and involving direct observations of parent-child interaction, LaFreniere and colleagues (1992; Dumas, LaFreniere, & Serketich, 1995) found that mothers of anxious-withdrawn children ranging from two to six years of age were more inclined than mothers of socially competent and average children to issue intrusive, coercive commands and to behave aversively by being critical, punitive, disapproving, or aggressive. Interestingly, anxious-withdrawn children were also less inclined than socially competent and average children to comply to their mothers' coercion, refusing to comply to maternal control 60% of the time. These findings imply a bidirectional relationship between maternal

overcontrol and internalizing behavioural problems in children. However, the balance of power in the parent-child relationship appeared to favour the mother almost exclusively, leaving the anxious-withdrawn child with fewer opportunities to assert independence. For instance, their resistance gave them little control over their mothers since mothers ignored the majority of their children's control exchanges by actively refusing to comply.

Taken together, these findings provide some tentative evidence that authoritarian or overcontrolling parenting may be conducive to the development of internalizing difficulties.

Setting conditions of parenting. As Bronfenbrenner (1979) proposed in his ecological systems theory, development occurs in a complex system of influences. Interconnections between environmental settings such as home, school, and peer group play a vital role in shaping the course of human development. Such development is thought to be a product of interaction between the individual and these diverse contexts. Hence, influences on development range from relatively distal factors such as cultural values to more proximal ones such as the quality of parenting.

Rubin and Lollis (1988) proposed that the context within which parenting occurs is comprised of various "setting conditions", i.e., conditions which set the stage

for parenting. Some of these setting conditions are "socio-ecological", such as parents' employment status, living conditions, financial resources, life-supporting resources (e.g., food), cultural and community values, and political conditions (e.g., war); some are "personal-social", such as parents' psychological adjustment, a supportive marital relationship, and support from extended family and friends; and some are "parental beliefs" about children and childrearing, such as parents' feelings about having their child, beliefs about what constitutes normal development, and beliefs about the best methods of discipline.

All of these setting conditions, if unfavourable, may be conducive to the development of socioemotional difficulties through their influence on parenting (Rubin & Lollis, 1988). For example, poverty and domestic relocation can have a harmful effect on the way parents interact with their children. Such adverse environmental conditions are conditions that most people would regard as stressful. When events are evaluated this way, negative psychological states may ensue, such as low self-esteem and feelings of helplessness; these states may, in turn, affect parenting in a negative way (Cohen & Wills, 1985).

Personal-social stressors may have similar detrimental effects on the way parents interact with their children. Indeed, there are a number of studies showing that a hostile or discordant marriage is associated with insecure parent-

infant attachment relationships and with problematic child functioning, including internalizing behaviours, from infancy through adolescence (Gable, Belsky, & Crnic, 1992). Parenting is especially likely to be affected in a negative way when, in addition to stress, there is an absence of social support. A stressed parent who does not receive any social or emotional support from spouse, family, relatives, or friends is likely to experience parenting problems which may be conducive to social-emotional problems in children. For example, work-related separations have been found to be associated with an increase in internalizing and externalizing problems in children (Kelley, 1994). Wives of American servicemen who were sent to the Persian Gulf War reported that, while their husbands were away, they were less nurturant (i.e., less warm, responsive, and sensitive) toward their school-age children, and that their children engaged in more internalizing and externalizing behaviours (Kelley, 1994).

A parent is even more likely to parent ineffectively if, in addition to experiencing adverse environmental conditions and personal-social stressors, they also believe in using ineffective methods of childrearing. The recognition that parental beliefs may mediate parenting behaviours has grown (e.g., Dix & Grusec, 1985; Goodnow, 1984, 1988; Miller, 1988; Weiner, 1980). It has been suggested that childrearing beliefs influence the way

parents interpret and respond emotionally to their child's behaviour. These ideas and emotions, in turn, affect parents' childrearing behaviour. Weiner (1980), in his attribution-emotion-action model, proposes that attributing a behaviour to particular causes influences one's expectations of the recurrence of the behaviour and elicits certain emotions, which might then guide behaviour. Applied to parenting, this suggests that when parents consider their children's misbehaviours intentional (internal and controllable), they may feel negative emotions and proceed to behave punitively.

Developmental Pathways Model

There seems to be little doubt that the development of socioemotional difficulties results from the interactive effects of numerous factors. Accordingly, Rubin and his colleagues (Rubin, LeMare, & Lollis, 1990; Rubin & Lollis, 1988) have put forward a comprehensive developmental model to account for the development of these difficulties. They suggest that a child develops internalizing or externalizing difficulties as a result of emotional insecurity. The child's sense of felt security is dependent on the quality of the child's relationships with his or her parents. The quality of these relationships, in turn, is a product of the child's temperament, the personal and social resources of the parents, the parents' beliefs and attitudes concerning childrearing, and circumstances and events external to the

family which affect how the family functions.

The model suggests that infants who are temperamentally highly reactive to stimulation, i.e., who have a low threshold of arousal, are highly prone to anxiety and, therefore, are more likely than other children to develop insecure attachments that are characterized by anxiety. Anxious insecurity is even more likely to develop if, in addition to the infant being prone to anxiety, the parent responds by becoming intrusive and controlling in an effort to help the child cope with the anxiety. Such overcontrol is likely to lead the child to develop a high degree of self-control, to the point of becoming excessively self-controlled and inhibited. In other words, the child will develop an internalized style of coping.

Further, the model suggests that parents are most likely to respond in an overcontrolling way under certain conditions: if they have beliefs that already favour the use of control, if they are under a great deal of stress from circumstances external to the family (e.g., unemployment, poverty), and if they lack support from others. Thus, according to this model, social-emotional adjustment is a product of many factors. A child is most likely to develop internalizing difficulties if the child is biologically predisposed to anxiety, is overcontrolled by parents, has parents who favour the use of control, and comes from a family under a great deal of stress and lacking the

resources needed to cope with that stress.

As the above review of the literature has indicated, there is evidence for some of the theoretical associations in the developmental pathways model. Many gaps remain, however. In particular, little is known about the parental beliefs and ideas that may contribute to the development of internalizing difficulties. As noted earlier, a number of studies have provided evidence indicating that parental overcontrol may be associated with internalizing difficulties in children (e.g., Baumrind, 1967; Gjerde et al., 1991; LaFreniere & Dumas, 1992; McCord et al., 1961; Thompson et al., 1990; Zemore & Rinholm, 1989). It is possible, then, that beliefs conducive to overcontrol play an important role in the development of internalizing difficulties.

Parental Beliefs and Parental Overcontrol

While it is not known what kind of parental beliefs may contribute to the development of internalizing behaviours, some suggestions are provided by studies linking certain attributions and emotions to overcontrolling parental behaviour. For example, Dix and his colleagues (Dix & Lochman, 1990; Dix, Ruble, Grusec, & Nixon, 1986; Dix, Ruble, & Zambarano, 1989) found that the more intentional and dispositional mothers believe their children's misdeeds to be, the more they think their children are to blame for their behaviour, the more upset and angry they feel, and the

more likely they are to use coercive interventions in dealing with their behaviour.

These findings suggest that parental control may be associated with attributions of blame and negative emotional responses to children's difficult behaviours. Since parental overcontrol appears to be associated with internalizing difficulties, as some of the studies described earlier suggest, it is possible that negative attributions and emotions are associated with internalizing difficulties.

There has been only one study to date examining the beliefs of parents whose children have internalizing difficulties. Rubin and Mills (1990) compared mothers of socially-average, aggressive-externalizing, and withdrawn-internalizing preschoolers with respect to their beliefs about socially competent behaviour and two types of unskilled social behaviours, aggression and withdrawal. The sample consisted of 121 mothers and their 4-year old children. In comparison to mothers of socially-average children (n = 60), mothers of withdrawn-internalizing children (n = 6) believed more in the use of directive methods (i.e., rewarding the child for appropriate behaviour, punishing the child for inappropriate behaviour, and telling the child exactly how to act) for promoting the development of social competence in their preschoolers. As well, these mothers were more negative than other mothers in their emotional reactions to unskilled social behaviours.

In particular, these mothers felt more angry, disappointed, embarrassed, and guilty than mothers of socially-average and aggressive-externalizing children about hypothetical displays of aggressive and withdrawn behaviours by their children. They were also more likely to attribute their child's unskilled social behaviours to personality traits in their child, such as shyness or aggressiveness. Finally, these mothers were more likely than other mothers to choose high-power strategies for dealing with both types of unskilled social behaviour. In the case of aggressive behaviour, this meant strategies such as threats, punishment, or forceful commands, and in the case of withdrawn behaviour, it meant responses such as making direct suggestions that their child join the peer group.

In summary, mothers of withdrawn-internalizing children, when compared to mothers of socially-average children, tended to believe more in the use of directive methods to teach their children social skills. When presented with hypothetical displays of aggression or withdrawal, they tended to feel more angry, disappointed, embarrassed, and guilty; they were more likely to attribute these behaviours to personality traits in their child; and they were more likely to choose directive methods of dealing with these behaviours.

These findings provide some initial evidence to suggest that the development of internalizing behaviours may be

associated with a pattern of parental beliefs in which the child's behaviour is attributed to traits, viewed negatively, and approached directively. As such, they are in need of replication. Thus, the purpose of this thesis is to attempt to replicate these findings.

Hypotheses

If the findings of Rubin and Mills (1990) can be replicated, the following hypotheses should be supported:

1. Mothers of internalizing children would believe more strongly than mothers of socially average children in the use of directive methods for teaching children social skills.
2. Mothers of internalizing children would respond to hypothetical displays of unskilled social behaviours with stronger negative emotions (anger, disappointment, embarrassment, guilt) than mothers of socially average children.
3. Mothers of internalizing children would be more inclined than mothers of socially average children to attribute hypothetical displays of unskilled social behaviours to traits in the child.
4. Mothers of internalizing children would be more inclined than mothers of socially average children to favour the use of directive strategies for correcting children's unskilled social behaviours.

Method

Participants

The sample consisted of 210 mothers of preschoolers recruited for a larger study of early socioemotional development. The sample was recruited through 36 day-care centres and nursery schools located in five regions of Winnipeg (Fort Garry, St. Vital, Windsor Park, Fort Rouge, and Charleswood). Information letters describing the study were distributed to mothers of all children between 42 and 64 months of age, with the exception of those who were either physically or mentally handicapped. Mothers were asked to give their consent to a teacher assessment of their child's socioemotional adjustment and a university visit to have their child participate in a play session and to complete some questionnaires.

Letters were distributed to 653 mothers. The response rate was 32%, resulting in an initial sample of 210 children and their mothers. Of these, 84 gave consent for the teacher assessment only, and 126 gave consent for both the teacher assessment and the university visit. Of the initial sample of 210 children, 13 were identified as Internalizing and 90 were identified as Socially-Average. Of these, 6 mothers of Internalizing children and 21 mothers of Socially-Average children consented to filling out a questionnaire.

In order to describe this target sample, information

was gathered about the following background characteristics of mothers: kinship to child (natural, stepmother, other), age, years of education, occupation, country of birth (Canada or other country), marital status (never married, cohabiting, married, separated, divorced, or widowed), and family income (less than $19,999, $20,000 to $29,999, $30,000 to $44,999, $45,000 to $59,999, $60,000 to $70,000, or more than $70,000). Mothers' occupations were coded using the Standard International Occupational Prestige Scale (Treiman, 1977). This scale ranges from 0 to 100, with higher scores indicative of greater prestige.

Table 1 summarizes the demographic characteristics of the sample. Mothers of Internalizing children were older, t (25) = -2.62, p = 0.02, and more educated, t (24.4 adj.) = -3.21, p = 0.004, than mothers of Socially-Average children. The two groups of mothers were quite similar in occupational backgrounds (the majority were in managerial and professional occupations), kinship to child (all were the biological mothers), country of birth (most were Canadian-born), marital status (most were married), and family income (the majority were in families with incomes of $45,000 or more).

Targetting of the Comparison Groups

Teachers rated each child using the Preschool Behaviour Questionnaire (PBQ, Behar, 1977; Behar & Stringfield, 1974a, 1974b; see Appendix A, items 1 to 28). The PBQ is a 30-item

Table 1

Characteristics of the Mothers

	Average	Internalizing
n	21	6
Mean years of age (*SD*)	33.8 (3.6)	38.7 (5.4)*
Mean years of education (*SD*)	15.2 (2.6)	17.3 (0.8)**
Mother's Occupational Status	50.0 (13.2)	55.5 (16.3)
%Biological Child	100	100
%Born in Canada	90	67
%Married	90	67
%With Family Income $45,000+	76	67

* $p < 0.02$, ** $p < 0.004$

scale designed for use by preschool teachers to aid in the screening of preschool populations for social-emotional disturbance in young children. The PBQ is a reliable and valid measure. Initial factor analyses indicated that the questionnaire tapped three factors, which were labelled "hostile-aggressive," "anxious-fearful," and "hyperactive-distractible" (Behar & Stringfield, 1974a). The test-retest reliability was 0.87 for the overall scale and 0.93, 0.60, and 0.94 for the three subscales, respectively (Behar, 1977; Behar & Stringfield, 1974a). As a measure of the questionnaire's validity, there were significant differences between normal and disturbed populations on the total PBQ mean score and on each of the subscales (Behar, 1977; Behar & Stringfield, 1974a). The lower test-retest reliability of the "anxious-fearful" subscale must be noted, as it suggests that the PBQ may not identify internalizing difficulties as accurately as externalizing difficulties.

The results of subsequent factor analyses (Moller & Rubin, 1988) suggest that the PBQ best yields two factors, one comprised of items describing anxious and withdrawn behaviours such as worrying, solitude, and fearfulness (labelled "internalizing") and the other comprised of items describing aggressive and hyperactive behaviours such as restlessness, destructiveness, and disobedience (labelled "externalizing"). The validity of these factors was supported by the finding of significant relations between

PBQ ratings on the externalizing factor and indices of aggression and unpopularity, and between PBQ ratings on the internalizing factor and indices of anxiety, withdrawal, and unpopularity.

To rate a child, teachers had to be familiar with the child (i.e., have known the child for at least three months). If possible, ratings were obtained from two teachers. Of the 210 preschoolers, 111 (53%) were rated by two teachers. Their scores were computed as the average of the two ratings. For each child, internalizing and externalizing factor scores were computed by summing the scores for the items loading on each factor. Higher scores reflected more internalizing (TRINT) and externalizing (TREXT) behaviours, respectively.

For the purposes of this study, five items measuring sociability were added to the PBQ (see Appendix A, items 29 to 33). Scores on these items were summed to create a total score indexing sociability (TRSOC), with higher scores reflecting greater sociability.

A group of Internalizing children was identified, defined as those who were at least three-quarters of a standard deviation above the mean for children of the same sex on teacher-rated internalizing difficulties (TRINT), at least three-quarters of a standard deviation below the mean on teacher-rated sociability (TRSOC), and less than three-quarters of a standard deviation above the mean on teacher-

rated externalizing difficulties (TREXT). Average children were identified as those whose scores were less than three-quarters of a standard deviation above the mean on TRINT, at or above the mean on TRSOC, and less than three-quarters of a standard deviation above the mean on TREXT. These criteria resulted in the identification of 13 (6.2%) Internalizing children and 90 (42.9%) Average children. The remaining 107 (50.9%) children were unclassified.

The proportions of children identified as Internalizing and Average were similar to those identified by Rubin and Mills (1990) (5% and 50%, respectively). The proportions of Internalizing children in the two studies (6.2% vs. 5%) are slightly under the low end of estimates of prevalence rates for internalizing difficulties in children from 5-18 years of age (between 7% and 20%), and fall short of the estimates of prevalence rates for children under 5 years of age (between 10% and 20%) (Cicchetti & Toth, 1991; Kagan et al., 1993; Rubin, 1993).

Mothers of the Internalizing and Average children were invited to visit the university for further data collection. For the purposes of the larger study, each child was paired with three other children of the same sex and the four mother-child dyads were scheduled to visit the lab for an observation of peer play. At that time, mothers completed a questionnaire.

Of the identified children, 6 of the 13 mothers of

Internalizing children and 21 of the 90 mothers of Average children consented to the university visit. Of those who consented, all 6 mothers of Internalizing children but only 12 mothers of Average children were able to visit the university within the time frame of the study. An additional 9 mothers of Average children agreed to complete the questionnaire by mail. In the present thesis, questionnaire data collected from 6 mothers of Internalizing children and 21 mothers of Average children were examined.

To determine if these two groups of participants were mothers of relatively "pure" Internalizing and Average children, the two groups were compared on TRINT and TRSOC. A combined score was derived by summing each child's scores on TRINT and TRSOC (reversed). There was no overlap in the two distributions.

To determine whether mothers of Internalizing children perceived their children as having Internalizing behaviours, mothers were asked to complete the Child Behaviour Checklist (CBCL) (Achenbach & Edelbrock, 1983, see Appendix B). It consists of 113 items describing behavioural problems, which parents rate on a 3-point scale, ranging from (0) "not true" of the child, (1) "sometimes true," and (2) "often true." The CBCL yields two factor scores, one assessing Internalizing problems (comprised of depression, social withdrawal, and somatic complaints) and the other assessing Externalizing problems (comprised of aggressiveness,

delinquency, and hyperactivity).

The CBCL appears to be a reasonably reliable and valid measure. One-week and three-month test-retest reliabilities for the total behaviour problems score for non-referred samples were .95 and .84, respectively (Achenbach & Edelbrock, 1983). Correlations between the total behaviour problems score and scores on other instruments such as the Conners Parent Questionnaire and the Quay-Peterson Revised Behaviour Problem Checklist range from .71 to .92, providing some evidence for construct validity (Achenbach & Edelbrock, 1983).

Measure of Maternal Beliefs About Modes of Learning

Mothers' beliefs about the most important ways of acquiring social skills were assessed by presenting them with short descriptions of four social skills (see Appendix C): "getting acquainted with someone new," "resolving peer conflicts," getting accepted into an ongoing play group of unfamiliar peers," and "standing up for oneself with other children." Following each description was a list of eight modes of learning, derived from the work of Elias and Ubriaco (1986): 1) being rewarded for appropriate behaviour and punished for inappropriate behaviour, 2) observing what other children do, 3) being told exactly how to act, 4) experiencing interactions with others, 5) being taught and encouraged at school, 6) observing what adults do, 7) being told why one should act in a certain way, and

8) experiencing the feelings that arise when being with someone. After reading the brief description of each social skill, mothers were asked to select the three most preferred means of learning, and then to rank them in order of importance. For example, mothers were first presented with a question, "How do you think a child learns to become good at getting acquainted with someone new?," and then asked to rank order the three most important of the eight modes of learning. Scores were assigned as follows: 3 to a rank of one, 2 to a rank of two, 1 to a rank of three, and 0 to any mode of learning not ranked. These scores were then summed across pairs of similar learning processes in order to produce summary scores reflecting the importance of four general modes of learning: 1) the child's personal experiences in the social environment (personal experiences), 2) imitation of parents and peers (observational learning), 3) receipt of explanations offered to the child by adult socializing agents (explanations), and 4) parental commands and use of reinforcement contingencies (directive teaching). These summary scores indexed the degree to which mothers believed that social skills are best acquired through personal experiences, observational learning, provision of explanations, or directive teaching. The scores could range from 0 to 5, with higher scores representing greater assigned importance.

Measure of Maternal Beliefs About Unskilled Social Behaviours

Mothers' emotional reactions, causal attributions, and strategies for dealing with peer-directed aggression and withdrawal were assessed by presenting mothers with short stories portraying hypothetical incidents of peer-directed aggression and withdrawal involving their child (see Appendix C). Two of the four stories depicted aggressive acts with peers occurring either in an activity group or at home, while the other two depicted social isolation occurring either at preschool or at a birthday party. Following each story, mothers were first asked, "How do you feel when you see your child act this way several times in a row?" The phrase "several times in a row" suggested a pattern of behaviour while still allowing for variability in mothers' responses. Mothers answered by rating each of nine emotions on a 3-point scale ranging from "not at all" (1) to "extremely" (3). The nine emotions were angry, disappointed, concerned, embarrassed, sad, guilty, anxious, surprised, and puzzled. Mothers' ratings of each emotion were summed across the two stories depicting each type of unskilled social behaviour. The resulting summary scores could range from 0 to 4.

To assess mothers' causal attributions and strategy choices, they were then asked to provide written responses to two open-ended questions: "Why do you think your child

has been acting this way?" and "What, if anything, would you do about your child's behaviour?" Mothers' responses were categorized using two coding schemes developed for the original study (Mills and Rubin, 1990).

Coding of Causal Attributions and Strategy Choices

Mothers' causal attributions were coded using the following categories (see Appendix D): "internal stable factors" (traits or dispositions), "internal unstable factors" (age or age-related factors such as a passing phase or a skill not yet learned; transient states such as mood or fatigue; acquired habits), "external factors" (the situation), "no explanation", or "other." Mothers' causal attributions about each type of behaviour (aggression, withdrawal) were quantified as proportions. For each type of attribution, the number of times it was mentioned to explain a given type of behaviour (aggression or withdrawal) was divided by the total number of all attributions made about that type of behaviour.

Mothers' strategy choices were coded using the following categories (see Appendix E): "high" power assertion, defined as involving strong force or coercion (forcing appropriate behaviour, punishing, threatening); "moderate" power assertion, defined as involving gentle direction (modeling, requesting/suggesting, guiding, resolving, other-oriented reasoning, self-oriented reasoning, normative statements, matter-of-fact reasoning,

emotional appeal); and "low" power assertion, defined as nondirective (seeking explanation from the child, reading to the child, supporting the child, rescuing, redirecting, seeking solution from the child); "indirect/no response", defined as not involving direct interaction with the child (information-seeking, e.g., "I'd talk to the teacher and find out why it happened," planful strategies, e.g., "perhaps parent-child group activities so I can correct situation as it develops," no response, e.g., "I would do nothing"); or "other." Mothers' strategy choices for each type of behaviour (aggression, withdrawal) were quantified as proportions. For each type of strategy, the number of times it was selected for dealing with a given type of unskilled social behaviour was divided by the total number of all strategies chosen for that type of behaviour.

Coder agreement. Two coders were trained in the use of the coding schemes until they reached 80% agreement. They then coded questionnaires independently, checking their agreement on one-third of the questionnaires. These questionnaires were randomly selected, with the restriction that they were proportionately representative of the two groups. The percent agreement was 84.4% for causal attributions and 83.8% for strategy choices.

Results

Analyses of variance were conducted to compare mothers of Internalizing and Average children with respect to their beliefs. Because the groups were unequal in size, and hence the sums of squares for the different effects would not be independent of one another, the sums of squares for each effect were adjusted for all other effects (Type III SS).

Group Differences in Maternal Beliefs

The primary objective of the present study was to determine if there were any differences between mothers of Socially-Average and Internalizing children in their beliefs concerning social behaviours. Specifically, the two groups of mothers were compared with respect to the importance assigned to each of four modes of learning social skills, the intensity of a range of emotions in reaction to unskilled social behaviours, the attribution of unskilled social behaviours to each of five types of causal reasoning, and the choice of each of three types of strategies in dealing with unskilled social behaviours.

Modes of learning social skills. The first hypothesis of the study was that mothers of Internalizing children would believe more strongly than mothers of Average children in the use of directive methods for teaching children social skills. The means and standard deviations for mothers' importance rankings for each of four modes of learning, as a function of Group and Type of Skill, are presented in

Table 2.

As mothers in the Internalizing group assigned almost no importance to Directive Teaching, except for resolving conflicts, the hypothesis was clearly not supported. To determine if there was a significant difference between the two groups of mothers in the importance they placed on Directive Teaching for resolving conflicts, an independent-groups *t*-test was computed. No significant difference was found, *t* (5.8 adj.) = -0.32, *p* = 0.76, *ns*.

To determine if there was a significant difference between the two groups of mothers in the importance they placed on the other modes of learning social skills as a function of Group (Internalizing, Average) and Type of Skill (getting acquainted with someone new, resolving peer conflicts, getting accepted into an ongoing play group of unfamiliar peers, standing up for oneself with other children), three repeated measures analyses were computed. It was necessary to do a separate analysis for each mode of learning due to the interdependence among the scores for the different modes of learning.

Preliminary examination of the data revealed that they met the assumptions of the *F*-test in most respects. The variables were normally distributed, with the exception of positive skewness in Explanations (skewness: 0.87). The assumption of homogeneity of variance was also met, with the exception of Personal Experiences, F (20,5) = 13.6,

Table 2

Modes of Learning Social Skills: Means (Standard Deviations) as a Function of Group and Type of Skill

	Socially-Average	Internalizing
Directive Teaching		
Getting acquainted	0.19 (0.60)	0.00 (0.00)
Getting accepted	0.10 (0.44)	0.00 (0.00)
Resolving conflicts	0.33 (0.66)	0.50 (1.22)
Standing up	0.10 (0.30)	0.00 (0.00)
Personal Experiences		
Getting acquainted	3.38 (1.36)	3.00 (0.63)
Getting accepted	3.24 (1.09)	3.50 (0.55)
Resolving conflicts	3.14 (1.65)	2.83 (1.17)
Standing up	3.24 (1.26)	3.67 (0.82)
Observational Learning		
Getting acquainted	1.71 (1.38)	2.00 (1.26)
Getting accepted	1.67 (1.06)	2.17 (0.75)
Resolving conflicts	1.10 (1.34)	1.00 (1.55)
Standing up	1.38 (1.32)	0.83 (1.33)
Explanation		
Getting acquainted	0.67 (0.86)	1.00 (0.89)
Getting accepted	0.67 (1.02)	0.33 (0.82)
Resolving conflicts	1.24 (1.45)	1.33 (1.37)
Standing up	0.76 (1.00)	1.33 (1.21)
n	21	6

$p < 0.01$.

The results of these analyses of variance are shown in Table 3. No significant difference between groups was found for any of the modes of learning. The sole significant effect was a main effect of Type of Skill on the importance mothers assigned to Observational Learning, F (3, 23) = 5.46, $p < .01$, and to Explanations, F (3, 23) = 4.04, $p < .05$. Paired multiple comparison tests were done through CONTRAST transformation, where each level of the repeated measures effect/within-subjects factor is used as a control level, against which the others are compared. (Contrast transformation is one of the options under repeated measures analysis of variance in SAS which allows for paired multiple comparisons.) The Type I error rate was adjusted by dividing the nominal alpha level by the number of comparisons performed, i.e., (0.05)/6 = 0.008. Hence, a comparison would be considered significant only at a p level of 0.008 or less. Using the skill of getting accepted into an ongoing play group of unfamiliar peers as a control level, this method revealed that mothers placed more importance on Explanations for the skill of resolving peer conflicts (M = 1.26) than for the skill of getting accepted into an ongoing play group of unfamiliar peers (M = 0.59), F (1, 25) = 9.89, p = 0.004. There were no significant differences between other types of skills in the importance mothers placed on Explanations. No significant differences

Table 3

Analyses of Variance for Modes of Learning

Analysis and Sources of Variation	df	F
Personal Experiences		
Group	1	0.00
Residual (Group)	25	
Type of Skill	3	0.59
Group X Type of Skill	3	0.59
Observational Learning		
Group	1	0.01
Residual (Group)	25	
Type of Skill	3	5.46**
Group X Type of Skill	3	1.27
Explanations		
Group	1	0.16
Residual (Group)	25	
Type of Skill	3	4.04*
Group X Type of Skill	3	1.57

Note: F ratios were computed using Type III sums of squares.

* $p < 0.05$, ** $p < 0.01$

between types of skills were found in the importance mothers placed on Observational Learning.

Emotional reactions. The second hypothesis of the study was that mothers of Internalizing children would respond to hypothetical displays of unskilled social behaviours with stronger negative emotions (anger, disappointment, embarrassment, guilt) than mothers of Average children. The means and standard deviations for mothers' emotional reactions, as a function of Group, Type of Behaviour, and Type of Emotion are presented in Table 4.

There was missing data for one participant from each group of mothers. This problem was dealt with by assigning to the mothers the mean value of their respective group.

Preliminary examination of the data revealed that the distributions for disappointment, concern, sadness, anxiety, surprise, and puzzlement were fairly normal (skewness: -0.12, 0.26, 0.28, 0.28, -0.49, and -0.39, respectively), while the deviations from normality in anger (skewness: 0.98), embarrassment (skewness: 0.62), and guilt (skewness: 2.68) ranged from mild to moderate. The assumption of homogeneity of variance was met, with F_{max} (5, 20) values ranging from 1.08, $p < 0.80$, to 5.72, $p < 0.06$.

As the data were considered suitable for the analysis of variance, the hypothesis was tested by computing an ANOVA. A mixed-model analysis of variance was computed on the scores for the nine emotions, with Group (Internalizing,

Table 4

Strength of Emotional Reactions: Means (Standard Deviations) as a Function of Group, Type of Behaviour, and Type of Emotion

	Socially-Average	Internalizing
Aggression		
Angry	1.80 (0.75)	1.80 (0.75)
Disappointed	2.55 (0.74)	2.20 (1.17)
Embarrassed	1.30 (1.10)	1.80 (1.00)
Guilty	0.45 (0.80)	0.80 (1.00)
Concerned	2.60 (0.86)	2.20 (1.17)
Sad	0.65 (0.85)	1.40 (0.49)
Anxious	1.20 (0.93)	1.80 (1.33)
Surprised	2.20 (0.87)	1.20 (1.17)
Puzzled	2.15 (1.01)	1.00 (0.89)
Social Withdrawal		
Angry	0.15 (0.48)	0.20 (0.40)
Disappointed	1.50 (1.07)	1.40 (1.02)
Embarrassed	0.35 (0.73)	0.80 (0.75)
Guilty	0.30 (0.90)	0.40 (0.49)
Concerned	2.57 (1.03)	2.50 (0.84)
Sad	1.55 (1.20)	2.00 (0.63)
Anxious	1.65 (0.91)	1.60 (1.02)
Surprised	2.80 (1.17)	1.20 (1.47)
Puzzled	2.45 (1.32)	1.40 (1.20)
n	21	6

Average) as the between-subjects factor and Type of Behaviour (aggression, social withdrawal) and Type of Emotion (anger, disappointment, embarrassment, guilt, concern, sadness, anxiety, surprise, puzzlement) as the within-subjects factors. The results of this analysis are shown in Table 5.

There was no significant main effect of Group on the strength of mothers' emotional reaction to their child's display of aggression or social withdrawal. Hence, the hypothesis that mothers of Internalizing children will respond to hypothetical displays of unskilled social behaviours with higher ratings of anger, disappointment, embarrassment, and guilt than mothers of Average children was not supported.

There were significant main effects of Type of Behaviour, F (1, 25) = 7.17, $p < 0.05$, and Type of Emotion, F (8, 18) = 18.83, $p < 0.001$, on the strength of mothers' emotional reactions. In addition, there was a significant interaction between Group and Type of Emotion, F (8, 18) = 3.95, $p < 0.01$, and between Type of Behaviour and Type of Emotion, F (8, 18) = 25.89, $p < 0.001$.

The interaction between Group and Type of Emotion was examined using CONTRAST transformation. In order to reduce the probability of making Type I errors when performing numerous tests, the Bonferroni criterion was once again used to adjust the Type I error rate by dividing the nominal

Table 5

Analysis of Variance for Emotional Reactions

Sources of Variation	df	F
Negative Emotions		
Group	1	0.25
Residual (Group)	25	
Type of Behaviour	1	7.17*
Group X Type of Behaviour	1	0.49
Type of Emotion	8	18.83***
Group X Type of Emotion	8	3.95**
Behaviour X Emotion	8	25.89***
Behaviour X Emotion X Group	8	0.78

Note: F ratios were computed using Type III sums of squares.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

alpha level by the number of comparisons performed, i.e., (0.05)/36 = 0.001. Hence, a comparison would be considered significant only at a p level of 0.001 or less. Using the emotion of surprise as a control level, this method revealed that there were significant Group differences in embarrassment, F (1, 25) =20.04, p = 0.0001, sadness, F (1, 25) = 16.98, p = 0.0004, guilt, F (1, 25) = 14.56, p = 0.0008, and anxiety, F (1, 25) = 17.93, p = 0.0003. Using the emotion of puzzlement as a control level, this method revealed that there were significant Group differences in embarrassment, F (1, 25) = 14.89, p = 0.0007, and anxiety, F (1, 25) = 14.77, p = 0.0007. Mothers of Internalizing children responded to hypothetical displays of unskilled social behaviours with higher ratings of embarrassment (M's = 1.30 vs. 0.82), sadness (M's = 1.70 vs. 1.10), guilt ((M's = 0.60 vs. 0.37), and anxiety (M's = 1.70 vs. 1.42) than mothers of Socially Average children.

The interaction between Type of Behaviour and Type of Emotion was also examined using CONTRAST transformation. The Type I error rate was adjusted by dividing the nominal alpha level by the number of comparisons performed, i.e., (0.05)/36 = 0.001. Hence, a comparison would be considered significant only at a p level of 0.001 or less. Using the emotion of anger as a control level, this method revealed that aggressive and withdrawn behaviours were associated with significant differences in disappointment, F (1, 25) =

27.07, p = 0.0001, and surprise, F (1, 25) = 19.80, p = 0.0002. Using the emotion of disappointment as a control level, this method revealed that aggressive and withdrawn behaviours were associated with significant differences in embarrassment, F (1, 25) = 26.55, p = 0.0001, and guilt, F (1, 25) = 48.97, p = 0.0001. Using the emotion of concern as a control level, this method revealed that aggressive and withdrawn behaviours were associated with significant differences in anger, F (1, 25) = 75.76, p = 0.0001, sadness, F (1, 25) = 37.32, p = 0.0001, guilt, F (1, 25) = 112.99, p = 0.0001, and anxiety, F (1, 25) = 32.15, p = 0.0001. Using the emotion of embarrassment as a control level, this method revealed that aggressive and withdrawn behaviours were associated with significant differences in concern, F (1, 25) = 52.08, p = 0.0001, and surprise, F (1, 25) = 15.78, p = 0.0005. Finally, using the emotion of guilt as a control level, this method revealed that aggressive and withdrawn behaviours were associated with significant differences in sadness, F (1, 25) = 17.71, p = 0.0003, anxiety, F (1, 25) = 27.44, p = 0.0001, surprise, F (1, 25) = 46.48, p = 0.0001, and puzzlement, F (1, 25) = 28.79, p = 0.0001. While mothers responded to hypothetical displays of aggression with higher ratings of anger (M's = 1.80 vs. 0.16), disappointment (M's = 2.47 vs. 1.48), and embarrassment (M's = 1.41 vs. 0.45) than they did to hypothetical displays of social withdrawal, they

responded to hypothetical displays of social withdrawal with higher ratings of sadness (M's = 1.65 vs. 0.82) than they did to hypothetical displays of aggression.

Causal attributions. The third hypothesis of the study was that mothers of Internalizing children would be more inclined than mothers of Average children to attribute hypothetical displays of unskilled social behaviours to traits in the child. The mean proportions and standard deviations for each type of attribution, as a function of Group and Type of Behaviour, are presented in Table 6.

There was missing data for two participants in the Socially Average group. This problem was dealt with by assigning to the mothers the mean value of their group.

To test the hypothesis, four analyses of variance were computed to examine differences between mothers of Internalizing and Average children with respect to four of the attributions: Traits, Age, Transient States, and Situational Factors. It was not possible to analyze Acquired Habits with an ANOVA, due to the absence of variance in the Social Withdrawal data for both groups. Because of interdependence among the proportions, a separate analysis was required for each type of attribution.

The data were considered suitable for the analysis of variance. The distributions for Situational Factors and Transient States were fairly normal (negative skewness: - 0.002 and -0.55, respectively), and while there were mild

Table 6

Causal Attributions: Mean Proportions (Standard Deviations) as a Function of Group and Type of Behaviour

	Socially-Average	Internalizing
Aggression		
Traits	0.05 (0.13)	0.08 (0.14)
Age	0.14 (0.25)	0.20 (0.27)
Transient states	0.55 (0.21)	0.46 (0.15)
Acquired habits	0.04 (0.12)	0.03 (0.07)
Situational factors	0.21 (0.20)	0.14 (0.16)
Social Withdrawal		
Traits	0.02 (0.11)	0.25 (0.17)
Age	0.02 (0.07)	0.14 (0.22)
Transient States	0.88 (0.19)	0.54 (0.35)
Acquired habits	0.00 (0.00)	0.00 (0.00)
Situational factors	0.06 (0.13)	0.07 (0.11)
n	21	6

to moderate deviations from normality in attributions to Traits (positive skewness: 1.15), Age (positive skewness: 1.48), and Acquired Habits (positive skewness: 3.3), the F-test is robust to non-normality (Clinch, 1979). Thus, the data were considered acceptable with respect to the assumption of normality. The assumption of homogeneity of variance was met, with Fmax (5, 20) values ranging from 1.43, $p < 0.51$, to 3.04, $p < 0.22$.

For each analysis of variance, the between-subjects factor was Group (Internalizing, Average) and the within-subjects factor was Type of Behaviour (aggression, social withdrawal). The results are shown in Table 7.

As the table shows, there were significant main effects of Group for Trait, F (1, 25) = 9.75, $p < 0.005$, and Transient States, F (1, 25) = 9.59, $p < 0.01$. Mothers of Internalizing children made more trait attributions than mothers of Socially-Average children (M's = 0.16 vs. 0.03, respectively), while mothers of Socially-Average children made more attributions to Transient States than mothers of Internalizing children (M's = 0.71 vs. 0.50, respectively). With Trait atributions, there was also a significant interaction between Group and Type of Behaviour, F (1, 25) = 5.15, $p < 0.04$. Mothers of Internalizing children made more trait attributions about social withdrawal than mothers of Socially Average children (M's = 0.25 vs. 0.02, respectively), and there was no difference between the two

TABLE 7

Analyses of Variance for Causal Attributions

Analysis and Sources of Variation	df	F
Traits		
Group	1	9.75***
Residual	25	
Type of Behaviour	1	2.71
Group X Type of Behaviour	1	5.15*
Age-related Factors		
Group	1	2.25
Residual	25	
Type of Behaviour	1	1.79
Group X Type of Behaviour	1	0.19
Transient States		
Group	1	9.59**
Residual	25	
Type of Behaviour	1	8.03**
Group X Type of Behaviour	1	2.92
Situational Factors		
Group	1	0.28
Residual	25	
Type of Behaviour	1	3.29
Group X Type of Behaviour	1	0.38

Note: F ratios were computed using Type III sums of squares.

* $p < 0.04$, ** $p < 0.01$, *** $p < 0.005$

groups of mothers in attributions about aggression (M's = 0.08 vs. 0.05, respectively).

Finally, there was also a significant main effect of Type of Behaviour on attributions to Transient States, F (1, 25) = 8.03, $p < 0.01$. Mothers made more transient states attributions about social withdrawal than about aggression (M's = 0.80 vs. 0.53, respectively).

To determine if there was a significant difference between the two groups of mothers in the extent to which they attributed aggressive behaviour to Acquired Habits, an independent-groups t-test was computed. No significant difference was found, t (25) = 0.31, p = 0.76, ns.

Strategies. The final hypothesis of this study was that mothers of Internalizing children would be more inclined than mothers of Average children to favour the use of directive strategies for correcting children's unskilled social behaviours. The mean proportions and standard deviations for mothers' strategy choices, as a function of Group and Type of Behaviour, are presented in Table 8.

To test the hypothesis, three analyses of variance were computed to examine differences between mothers of Internalizing and Average children with respect to three strategies: Directive, Low Power, and Indirect/No Response. In the original study, it was found that moderate-power strategies were the norm for dealing with aggression, and low-power strategies were the norm for

TABLE 8

Strategies: Mean Proportions (Standard Deviations) as a Function of Group and Type of Behaviour

	Socially-Average		Internalizing	
	M	SD	M	SD
Aggression				
Directive strategies	0.19	0.27	0.03	0.07
Low power	0.37	0.13	0.34	0.14
Indirect/no response	0.04	0.07	0.15	0.14
Social Withdrawal				
Directive strategies	0.25	0.31	0.39	0.15
Low power	0.48	0.35	0.30	0.24
Indirect/no response	0.14	0.17	0.15	0.08
n	21		6	

dealing with social withdrawal (Mills & Rubin, 1990). On the basis of this finding, "directive" was defined, for aggressive behaviour, as the proportion of high-power strategies reported and, for withdrawn behaviour, as the proportion of high- or moderate-power strategies reported.

Because of interdependence among the proportions, a separate analysis was required for each one. The data were considered suitable for analysis of variance. The distributions for Low Power and Indirect/No Response strategies were normal, while that of Directive strategy was not (positive skewness: 1.09). The assumption of equal variances was also met, with the exception of Directive strategies, $F\max\ (1, 25) = 6.57$, $p < 0.05$. Some caution may be needed in interpreting the analysis for Directive strategies.

For each type of strategy, the between-subjects factor was Group (Internalizing, Average) and the within-subjects factor was Type of Behaviour (aggression, social withdrawal). The results of the analyses are shown in Table 9.

As the table shows, there were no significant main effects of Group for any of the strategies. Therefore, the final hypothesis was not supported. Although there was no significant group difference for directive strategies, mothers of Internalizing children were relatively more likely than mothers of Average children to report the use of

TABLE 9

Analyses of Variance for Strategies

Analysis and Sources of Variation	df	F
Directive Strategies		
Group	1	0.00
Residual	25	
Type of Behaviour	1	6.79*
Group X Type of Behaviour	1	3.64
Low Power Strategies		
Group	1	1.49
Residual	25	
Type of Behaviour	1	0.21
Group X Type of Behaviour	1	0.88
Indirect/no response		
Group	1	1.82
Residual	25	
Type of Behaviour	1	1.99
Group X Type of Behaviour	1	1.57

Note: F ratios were computed using Type III sums of squares.

* $p < 0.05$

directive strategies when responding to social withdrawal (see Table 8). Although this finding is not significant and specific to social withdrawal, it is in line with the predicted direction for the group difference. There was a significant main effect of Type of Behaviour on the extent to which mothers chose Directive Strategies, F (1, 25) = 6.79, $p < 0.05$. Mothers chose more Directive Strategies in response to social withdrawal than to aggression (M's = 0.28 vs. 0.15, respectively).

Mothers' Perceptions of Their Children. The above analyses indicate that mothers of Internalizing and Average children did not differ in either the level of importance assigned to the directive mode of learning social skills, the strength of negative emotional reactions to unskilled social behaviours, or the extent of directive strategies for dealing with their child's unskilled social behaviours. Although the predicted significant difference in trait attributions was found, the absence of significant group differences in mothers' importance rankings, emotional reaction, and strategy choices raises the question of whether mothers of Internalizing children perceived their child's behaviour as problematic. To assess this, mothers of Internalizing and Socially Average children were compared to see if they differed in their perceptions of their children's behaviour. The comparison was done using mothers' ratings on the Child Behaviour Checklist (CBCL).

To determine if there was a significant difference between Internalizing and Socially-Average children on the CBCL Internalizing and Externalizing dimensions, two independent-groups *t*-tests were computed. No significant differences were found on either Internalizing, t (25) = 0.56, p = 0.58, *ns*, or Externalizing, t (25) = -0.22, p = 0.83, *ns*.

Discussion

The primary objective of the present study was to attempt to replicate an earlier study (Rubin and Mills, 1990). In this earlier study, it was found that mothers of withdrawn-internalizing children, when compared to mothers of socially average children, tended to believe more in the use of directive methods to teach their children social skills. In addition, when presented with hypothetical displays of aggression or withdrawal, they tended to feel more angry, disappointed, embarrassed, and guilty than the other mothers; they were more likely to attribute these behaviours to personality traits in their child; and they were more likely to choose directive methods for dealing with these behaviours. These findings provided some initial evidence to suggest that the development of internalizing behaviours may be associated with a pattern of parental beliefs in which the child's behaviour is attributed to traits, viewed negatively, and approached directively.

In an attempt to replicate these findings, mothers of internalizing and socially-average children in the present study were compared with respect to the importance assigned to each of four modes of learning social skills, the intensity of nine emotions in reaction to unskilled social behaviours, the attribution of unskilled social behaviours to each of five types of causal reasoning, and the choice of each of three types of strategies in dealing with unskilled

social behaviours. They did not differ in the importance they assigned to directive teaching or in the choice of directive methods for dealing with aggressive and withdrawn behaviours. Differences were found in their emotional reactions to aggression and withdrawal, but only two of these differences (embarrassment and guilt) replicated Rubin and Mills's finding. Mothers of internalizing children made more trait attributions than those of socially average children, but it was specific to social withdrawal, rather than a generalized attribution. In sum, the findings of Rubin and Mills (1990) were not replicated.

The present findings seem to be coherent and meaningful within the context of Rubin's developmental pathways model. The finding that the two groups of mothers did not differ in their perceptions of their children's behaviour based on the CBCL seemed to be congruent with the present finding that mothers did not differ in the importance they assigned to directive teaching or in the choice of directive methods for dealing with aggressive and withdrawn behaviours.

The significant group difference found in trait attributions and the predicted direction for group difference found in directive strategies were specific to social withdrawal. These two particular findings imply that mothers of internalizing children may be responding to their child's difficulty rather than having a parental style that their child is responding to.

These aforementioned findings imply that factors other than a directive style of parental beliefs may have contributed to the development of children's internalizing problems. For instance, the present finding that mothers of internalizing children made more trait attributions to social withdrawal than mothers of socially average children may imply that these mothers were correctly attributing their child's internalizing tendencies such as social withdrawal to the child's disposition. This implication is in line with Kagan and his colleagues' finding that approximately 10% to 15% of the population may be born with a temperamental disposition favouring inhibition. In addition, because mothers of internalizing children were more inclined than mothers of average children to attribute their child's social withdrawal to the child's disposition, these mothers may also be more inclined to experience helplessness and frustration due to not knowing how to manage or cope with their child's internalizing tendencies and hence, may feel more embarrassed and guilty when confronted with the display of both aggression and social withdrawal in their child than mothers of average children.

On the other hand, these findings must be interpreted with caution due to the limitations of the present study, particularly with respect to the small sample and unbalanced design. The small sample could have led to erroneous results due to low power and large random fluctuation. In

particular, the small sample of internalizing children may not reflect the real variation in the population of internalizing children. Therefore, both samples of internalizing children in the original and present studies may be biased in that they represent different kinds of samples. For instance, the sample in the original study may have represented children in the population who were more severely internalizing while the present sample may represent children in the population who are less severely internalizing.

The discrepancy between the present findings and those of the original study may have been due to a cultural confound of some kind. For instance, the two samples of internalizing children may have differed in cultural composition. There may have been a higher composition of mothers of internalizing children not born in Canada in the original study. Therefore, it is possible that the original findings on the importance assigned to directive teaching and in the choice of directive strategies for dealing with aggression and withdrawal may not be genuine differences, but differences due to chance.

The unbalanced design, in which the between-subjects group sizes were unequal, meant that there were built-in correlations among the factors, which may have resulted in biased *F* tests. As well, the effects of certain assumption violations (e.g., heterogeneity of variance) may have been

exacerbated in the presence of unequal group sizes.

Another reason for the failure to replicate may have been the use of a less rigorous method for identifying the target groups in the present study. In contrast to Rubin and Mills (1990), who combined observations with teacher assessments, in the present study only teacher assessments were available. Moreover, the "anxious-fearful" subscale of the teacher assessment used was not high in test-retest reliability. Given the greater validity that can be achieved by the aggregation of multiple reliable indicators (Epstein, 1986), another reason for the failure to replicate may have been a lack of accuracy in the identification of the target groups in the present study. Hence, the discrepancy between the two sets of findings may be due to different methods of identifying target groups.

Thus, it remains a possibility that true differences exist between mothers of internalizing and socially average children, which the present study lacked the power to detect. Indeed, the two significant group differences found in the present study support the general notion that relations exist between parental beliefs and child characteristics. They are also consistent with the assumption that some parental beliefs and perceptions reflect the recognition of children's characteristics while others may reflect parents' personal attitudes and reactions to certain behaviours. Clearly, more research is needed to

understand these relations. As the present study attests, this research needs to be done with larger samples.

Directions for Future Research

The present study provided some evidence to suggest that the development of internalizing behaviours may be associated with certain parental beliefs in which the child's withdrawn behaviour is attributed to the child's disposition and reacted to with embarrassment and guilt. These findings seem to be coherent and meaningful within the context of Rubin's developmental pathways model, which proposes that internalizing problems result from complex interactions of various factors. However, the present findings lack validity due to the use of only one targetting method. They also lack reliability due to the smallness of the sample and resulting low power to detect differences between groups.

Therefore, it is imperative for future researchers to conduct studies on the association between the development of internalizing difficulties and certain negative attributions and emotions by endeavouring to increase the sample size of internalizing children through involving more preschool/nurseries/day care centres during the non-summer months when families are less mobile (i.e., returned from holidays, more settled), and possibly through the provision of financial compensation for the participation of both parents of internalizing children. Based on power analysis,

an ideal sample of 46 subjects is recommended for the purpose of conducting a reasonably high power test when assuming a moderate effect size (Cohen, 1992; Cohen & Cohen, 1983; Kraemer & Thiemann, 1987).

One may improve the accuracy of identifying target groups by employing multiple reliable methods such as teacher and parental ratings, as well as observations. In addition, by comparing socially average children not only with internalizing children but also with externalizing children, one will be able to determine if the findings on differences between mothers of average and internalizing children also apply to parents of externalizing children. In particular, one may be able to determine if parents of externalizing children will be more inclined than parents of socially average children to attribute aggression (and not social withdrawal) to traits in their child, just as mothers of internalizing children were found to be more inclined than mothers of socially average children to attribute social withdrawal (and not aggression) to traits in their child. If future research reveals that parents of externalizing children are indeed more inclined than parents of average children to attribute aggression but not social withdrawal to traits in their child, than one may be able to conclude that parents tend to attribute their child's specific behavioural problems to their child's disposition. Such a finding may lead one to suggest that there is an

association between trait attributions and behavioural problems in children, and to speculate that parents' trait attributions are not only conducive to the development of their child's behavioural problems, but are also influenced by child behavioural problems.

More grounded research on the relations between certain parental beliefs (specifically, attributions and emotions) and the development of internalizing difficulties in children is needed. As childrearing beliefs influence the way parents respond to their child's behaviour, this line of research must extend beyond parental beliefs to parenting behaviour and needs to account for the development of internalizing problems in children over time. As well, the context within which parenting occurs such as financial or marital status needs to be considered. The ultimate goal is to obtain a better understanding of the complex interactions among multiple factors that are jointly conducive to the development of internalizing tendencies in children so that these problems can be dealt with appropriately from their onset.

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Appendix A

Preschool Behaviour Questionnaire (PBQ)

Child's Name: ---------- Centre Attending: ----------

Rated by: ---------- Present date: ----------

Title of rater: ---------- Child's birthday: ----------

Following is a series of descriptions of behaviour often shown by children. After each statement are three columns: "Doesn't Apply," "Applies Sometimes," and "Certainly Applies." If the child shows the behaviour described by the statement frequently or to a great degree, place an "X" in the space under "Certainly Applies." If the child shows behaviour described by the statement to a lesser degree or less often, place an "X" in the space under "Applies Sometimes." If, as far as you are aware, the child does not show the behaviour, place an "X" in the space under "Doesn't Apply." Please put ONE "X" for EACH statement.

	Doesn't Apply	Applies Sometimes	Certainly Applies
1. Restless. Runs about or jumps up and down. Doesn't keep still.	----	----	----
2. Squirmy, fidgety child.	----	----	----
3. Destroys own or other's belongings.	----	----	----
4. Fights with other children.	----	----	----
5. Not much liked by other children.	----	----	----
6. Is worried. Worries about many things.	----	----	----
7. Tend to do things on her/his own, rather solitary.	----	----	----

	Doesn't Apply	Applies Sometimes	Certainly Applies
8. Irritable, quick to "fly off the handle."	----	----	----
9. Appears miserable, unhappy, tearful, or distressed.	----	----	----
10. Has twitches, mannerisms, or tics of the face and body.	----	----	----
11. Bites nails or fingers.	----	----	----
12. Is disobedient.	----	----	----
13. Has poor concentration or short attention span.	----	----	----
14. Tends to be fearful or afraid of new things or new situations.	----	----	----
15. Fussy or over-particular child.	----	----	----
16. Tells lies.	----	----	----
17. Has wet or soiled self this year.	----	----	----
18. Has stutter or stammer.	----	----	----
19. Has other speech difficulty.	----	----	----
20. Bullies other children.	----	----	----
21. Inattentive.	----	----	----
22. Doesn't share toys.	----	----	----
23. Cries easily.	----	----	----
24. Blames others.	----	----	----

	Doesn't Apply	Applies Sometimes	Certainly Applies
25. Gives up easily.	----	----	----
26. Inconsiderate of others.	----	----	----
27. Kicks, bites, or hits other children.	----	----	----
28. Stares into space.	----	----	----

Following is a series of behaviours often shown by children. After each statement are three columns: "Doesn't Apply," "Applies Sometimes," and "Certainly Applies." If the child shows the behaviour described by the statement frequently or to a great degree, place an "X" in the space under "Certainly Applies." If the child shows behaviour described by the statement to a lesser degree or less often, place an "X" in the space under "Applies Sometimes." If, as far as you are aware, the child does not show the behaviour, place an "X" in the space under "Doesn't Apply." Please put ONE "X" for EACH statement.

	Doesn't Apply	**Applies Sometimes**	**Certainly Applies**
29. Has many friends.	----	----	----
30. Makes new friends easily.	----	----	----
31. Likes to play with others rather than alone.	----	----	----
32. Shares things with others.	----	----	----
33. Enjoys being around other people.	----	----	----

Appendix B

Child Behaviour Checklist (CBCL)

Below is a list of items that describe children. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat true or sometimes true of your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = not true (as far as you know)
1 = somewhat or sometimes true
2 = very true or often true

		Not True	Sometimes	Often True
1.	Acts too young for his/her age.	0	1	2
2.	Allergy (describe):_____ _____	0	1	2
3.	Argues a lot.	0	1	2
4.	Asthma.	0	1	2
5.	Behaves like opposite sex.	0	1	2
6.	Bowel movements outside toilet.	0	1	2
7.	Bragging, boasting.	0	1	2
8.	Can't concentrate, can't pay attention for long.	0	1	2
9.	Can't get his/her mind off certain thoughts; obsessions (describe):	0	1	2
10.	Can't sit still, restless, or hyperactive.	0	1	2
11.	Clings to adults or too dependent.	0	1	2

		Not True	Sometimes	Often True
12.	Complains of loneliness.	0	1	2
13.	Confused or seems to be in a fog.	0	1	2
14.	Cries a lot.	0	1	2
15.	Cruel to animals.	0	1	2
16.	Cruelty, bullying, or meanness to others.	0	1	2
17.	Day-dreams or gets lost in his/her thoughts.	0	1	2
18.	Deliberately harms self or attempts suicide.	0	1	2
19.	Demands a lot of attention.	0	1	2
20.	Destroys his/her own things.	0	1	2
21.	Destroys things belonging to his/her family or other children.	0	1	2
22.	Disobedient at home.	0	1	2
23.	Disobedient at school.	0	1	2
24.	Doesn't eat well.	0	1	2
25.	Doesn't get along with other children.	0	1	2
26.	Doesn't seem to feel guilty after misbehaving.	0	1	2
27.	Easily jealous.	0	1	2
28.	Eats or drinks things that are not food (describe):	0	1	2
29.	Fears certain animals, situations, or places, other than school (describe):	0	1	2
30.	Fears going to school.	0	1	2

		Not True	Sometimes	Often True
31.	Fears he/she might think or do something bad.	0	1	2
32.	Feels he/she has to be perfect.	0	1	2
33.	Feels or complains that no one loves him/her.	0	1	2
34.	Feels others are out to get him/her.	0	1	2
35.	Feels worthless or inferior.	0	1	2
36.	Gets hurt a lot, accident-prone.	0	1	2
37.	Gets in many fights.	0	1	2
38.	Gets teased a lot.	0	1	2
39.	Hangs around with children who get in trouble.	0	1	2
40.	Hears things that aren't there (describe):	0	1	2
41.	Impulsive or acts without thinking.	0	1	2
42.	Like to be alone.	0	1	2
43.	Lying or cheating.	0	1	2
44.	Bites fingernails.	0	1	2
45.	Nervous, highstrung, or tense.	0	1	2
46.	Nervous movements or twitching (describe):	0	1	2
47.	Nightmares.	0	1	2
48.	Not liked by other children.	0	1	2
49.	Constipated, doesn't move bowels.	0	1	2

		Not True	Sometimes	Often True
50.	Too fearful or anxious.	0	1	2
51.	Feels dizzy.	0	1	2
52.	Feels too guilty.	0	1	2
53.	Overeating.	0	1	2
54.	Overtired.	0	1	2
55.	Overweight.	0	1	2
56.	Physical problems without known medical cause:			
	a. Aches or pains.	0	1	2
	b. Headaches.	0	1	2
	c. Nausea, feels sick.	0	1	2
	d. Problems with eyes (describe):	0	1	2
	e. Rashes or other skin problems.	0	1	2
	f. Stomachaches or cramps.	0	1	2
	g. Vomiting, throwing up.	0	1	2
	h. Other (describe):	0	1	2
57.	Physically attacks people.	0	1	2
58.	Picks nose, skin, or other parts of body (describe):	0	1	2
59.	Plays with own sex parts in public.	0	1	2
60.	Plays with own sex parts too much.	0	1	2
61.	Poor school work.	0	1	2
62.	Poorly coordinated or clumsy.	0	1	2

		Not True	Sometimes	Often True
63.	Prefers playing with older children.	0	1	2
64.	Prefers playing with younger children.	0	1	2
65.	Refuses to talk.	0	1	2
66.	Repeats certain acts over and over; compulsions (describe):	0	1	2
67.	Runs away from home.	0	1	2
68.	Screams a lot.	0	1	2
69.	Secretive, keeps things to self.	0	1	2
70.	Sees things that aren't there (describe):	0	1	2
71.	Self-conscious or easily embarrasssed.	0	1	2
72.	Sets fires.	0	1	2
73.	Sexual problems.	0	1	2
74.	Showing off or clowning.	0	1	2
75.	Shy or timid.	0	1	2
76.	Sleeps less than most children.	0	1	2
77.	Sleeps more than most children during day and/or night (describe):	0	1	2
78.	Smears or plays with bowel movements.	0	1	2
79.	Speech problem (describe):	0	1	2
80.	Stares blankly.	0	1	2
81.	Steals at home.	0	1	2

		Not True	Sometimes	Often True
82.	Steals outside the home.	0	1	2
83.	Stores up things he/she doesn't need (describe):	0	1	2
84.	Strange behaviour (describe):	0	1	2
85.	Strange ideas (describe):	0	1	2
86.	Stubborn, sullen, irritable.	0	1	2
87.	Sudden changes in mood or feelings.	0	1	2
88.	Sulks a lot.	0	1	2
89.	Suspicious.	0	1	2
90.	Swearing or obscene language.	0	1	2
91.	Talks about killing self.	0	1	2
92.	Talks or walks in sleep.	0	1	2
93.	Talks too much.	0	1	2
94.	Teases a lot.	0	1	2
95.	Temper tantrums or hot temper.	0	1	2
96.	Thinks about sex too much.	0	1	2
97.	Threatens people.	0	1	2
98.	Thumb-sucking.	0	1	2
99.	Too concerned with neatness or cleanliness.	0	1	2
100.	Trouble sleeping (describe):	0	1	2
101.	Truancy, skips school.	0	1	2

		Not True	Sometimes	Often True
102.	Underactive, slow moving, or lacks energy.	0	1	2
103.	Unhappy, sad, or depressed.	0	1	2
104.	Unusually loud.	0	1	2
105.	Uses alcohol or drugs (describe):	0	1	2
106.	Vandalism.	0	1	2
107.	Wets self during the day.	0	1	2
108.	Wets the bed.	0	1	2
109.	Whining.	0	1	2
110.	Wishes to be of opposite sex.	0	1	2
111.	Withdrawn, doesn't get involved with others.	0	1	2
112.	Worrying.	0	1	2
113.	Please write in any problems your child has that were not listed above:			
	_____	0	1	2
	_____	0	1	2
	_____	0	1	2

Appendix C

Parent Questionnaire

Child's Number _____

Date _____

We greatly appreciate your time in answering the following questions. Please be assured that all of the information you provide in this questionnaire will be considered confidential.

How do children acquire social skills? There is no right or wrong answer to this question. We would like to know what you think.

1. How do you think a child learns to become good at getting acquainted with someone new? Here is a list of ways. Please put a "1" next to the one you consider most important, a "2" next to the one that is second in importance, and a "3" next to the one that is third in importance. Leave the remaining ones blank.

____ Being rewarded for appropriate behaviour and punished for inappropriate behaviour.

____ Observing what other children do.

____ Being told exactly how to act.

____ Experiencing interactions with others.

____ Being taught and encouraged at school.

____ Observing what adults do.

____ Being told why one should act a certain way.

____ Experiencing the feelings that arise when meeting someone new.

____ Some other way (please specify): _____

_____

2. How do you think children learn to become good at resolving conflicts with other children? Here is a list of ways. Please put a "1" next to the one you consider most important, a "2" next to the one that is second in importance, and a "3" next to the one that is third in importance. Leave the remaining ones blank.

____ Being rewarded for appropriate behaviour and punished for inappropriate behaviour.

____ Observing what other children do.

____ Being told exactly how to act.

____ Experiencing interactions with others.

____ Being taught and encouraged at school.

____ Observing what adults do.

____ Being told why one should act a certain way.

____ Experiencing the feelings that arise when conflict occurs.

____ Some other way (please specify):_____

_____

3. How do you think children learn to become good at getting accepted into an established play group of unfamiliar age-mates? Here is a list of ways. Please put a "1" next to the one you consider most important, a "2" next to the one that is second in importance, and a "3" next to the one that is third in importance. Leave the remaining ones blank.

____ Being rewarded for appropriate behaviour and punished for inappropriate behaviour.

____ Observing what other children do.

____ Being told exactly how to act.

____ Experiencing interactions with others.

____ Being taught and encouraged at school.

____ Observing what adults do.

____ Being told why one should act a certain way.

____ Experiencing the feelings that arise when entering an established group.

____ Some other way (please specify): _____

_____

4. How do you think children learn to become good at standing up for themselves with other children? Here is a list of ways. Please put a "1" next to the one you consider most important, a "2" next to the one that is second in importance, and a "3" next to the one that is third in importance. Leave the remaining ones blank.

____ Being rewarded for appropriate behaviour and punished for inappropriate behaviour.

____ Observing what other children do.

____ Being told exactly how to act.

____ Experiencing interactions with others.

____ Being taught and encouraged at school.

____ Observing what adults do.

____ Being told why one should act a certain way.

____ Experiencing the feelings that arise when standing up for oneself.

____ Some other way (please specify): _____

_____

We would like to know what parents think about the ways in which their children play with other children. Parents answer these questions in a variety of different ways and there are no right or wrong answers.

Situation #1
The last three times you arrive to pick up your child from an activity group, you see him/her playing in a group. Each time, you notice that whenever your child wants a toy that another child is playing with, your child grabs the toy and pushes the other child down.

1. How do you feel when you see your child act this way several times in a row? (Circle one number for each question.)

	Not at all	Somewhat	Extremely
How angry?	0	1	2
How disappointed?	0	1	2
How concerned?	0	1	2
How embarrassed?	0	1	2
How sad?	0	1	2
How guilty?	0	1	2
How anxious?	0	1	2
How surprised?	0	1	2
How puzzled?	0	1	2
How other? (specify:)	0	1	2

_____

2. Why do you think your child has been acting this way?

3. What, if anything, would you do about your child's behaviour? (Please be specific. What would you actually say and do, if anything?)

Situation #2
Several times over the past month, while helping out at children's birthday parties, you have had an opportunity to observe your child at play. Each time you notice that your child spends most of the time playing alone, never trying to join the others in their games.

1. How do you feel when you see your child act this way several times in a row? (Circle one number for each question.)

	Not at all	Somewhat	Extremely
How angry?	0	1	2
How disappointed?	0	1	2
How concerned?	0	1	2
How embarrassed?	0	1	2
How sad?	0	1	2
How guilty?	0	1	2
How anxious?	0	1	2
How surprised?	0	1	2
How puzzled?	0	1	2
How other? (specify:) _____	0	1	2

2. Why do you think your child has been acting this way?

3. What, if anything, would you do about your child's behaviour? (Please be specific. What would you actually say and do, if anything?)

Situation #3
The last few times your child has invited a friend over to play, you have found that the children spent a lot of time fighting over toys and activities.

1. How do you feel when you see your child act this way several times in a row? (Circle one number for each question.)

	Not at all	Somewhat	Extremely
How angry?	0	1	2
How disappointed?	0	1	2
How concerned?	0	1	2
How embarrassed?	0	1	2
How sad?	0	1	2
How guilty?	0	1	2
How anxious?	0	1	2
How surprised?	0	1	2
How puzzled?	0	1	2
How other? (specify:)	0	1	2

_____

2. Why do you think your child has been acting this way?

3. What, if anything, would you do about your child's behaviour? (Please be specific. What would you actually say and do, if anything?)

Situation #4
The last few times you have gone to your child's school to get her/him, you have been able to observe her/him during free play. On each occasion, you notice that your child is not playing with anyone and that s/he spends almost the entire time alone.

1. How do you feel when you see your child act this way several times in a row? (Circle one number for each question.)

	Not at all	Somewhat	Extremely
How angry?	0	1	2
How disappointed?	0	1	2
How concerned?	0	1	2
How embarrassed?	0	1	2
How sad?	0	1	2
How guilty?	0	1	2
How anxious?	0	1	2
How surprised?	0	1	2
How puzzled?	0	1	2
How other? (specify:)	0	1	2

_____

2. Why do you think your child has been acting this way?

3. What, if anything, would you do about your child's behaviour? (Please be specific. What would you actually say and do, if anything?)

Appendix D

Coding Scheme for Causal Attributions

Causal attributions are coded using the following categories:

Traits or Dispositions - characteristics which the parent describes in such a way as to suggest that they are consistent over time and/or across similar situations (e.g., "she's always been shy," "he prefers to play alone," "she had temper," "he'll do that if he doesn't know anyone," "they're boys").

Age or Age-Related Factors - a passing stage or a skill not yet learned (e.g., "going through a difficult phase," "she hasn't yet learned how to....").

Transient Internal States - transient states or temporary emotional reactions such as moods or fatigue (e.g., "maybe something upset her just before").

Acquired Habits - a pattern of behaviour that is described as habitual but not as dispositional (e.g., "his brothers do that so he's copying them").

Situational Factors - aspects of the hypothetical situation perceived as responsible for the child's behaviour (e.g., "has been rejected by the group," "it could be that this is an accepted way of acting with this group," "he would have to have been pretty provoked"). Must be aspects of the immediate hypothetical situation.

No Explanation (NE) - parent indicates that she does not have an explanation for the child's behaviour.

Other

Appendix E

Coding Scheme for Suggested Socialization Strategies

The following categories are used to code only the parent's suggested initial response to the child's hypothetical behaviour. Thus, strategies which are contingent on the child's reaction to the parent's first suggested strategy are not coded (e.g., "If she kept on doing it after I told her to stop, I'd separate them").

Category:	Definition:
HIGH POWER:	Use of direct commands, force, threats, or aversive external or internal consequences.
HIGH	
Forcing Appropriate Behaviour	Verbally commanding the child or physically making the child behave appropriately (e.g., "Don't do that," "Apologize").
Punishment	Withdrawal of priviledge (e.g., prohibiting use of toys), social or physical isolation (e.g., sending the child to room), physical punishment.
Threat	Threat of punishment.
MODERATE-TO-LOW POWER:	Techniques which give the child choice whether or not to comply, provide information regarding implications of the behaviour in question, or appeal to conscience.
MODERATE	
Modeling	Physical demonstration by the parent of how the child could behave (e.g., "I'd join in the play to demonstrate the point").

Category:	Definition:
Suggestion/Guidance	Statements indicating the direction for the child's behaviour to take with practically no pressure to comply and no arbritrariness; child has choice about compliance (e.g., "Gently encourage him to play with others," "Ask her if she wants to join them"). Verbal instruction on how to behave, or help getting started.
Resolve	Help child(ren) reach solution to problem.
Other-oriented reasoning	Referring to others' needs or to the potential physical or emotional consequences of child's behaviour for others, i.e., training in perspective-taking or empathy (e.g., "I'd tell him he should try to play with the others; they're not always going to be doing what he wants to do," "How would you feel if someone did that to you?")
Self-oriented reasoning	Referring to consequences of child's behaviour for the self (e.g., "If you're not nice she won't be your friend").
Normative statements	Unembellished statements referring to social or moral values (e.g., "Take turns," "It's important to share").
Matter-of-fact reasoning	Focusing on nonsocial or pragmatic reasons (e.g., "I'd ask why they were fighting over this one toy when there's so many to play with").
Emotional Appeal	Appeals to child's conscience; statement of personal reaction to the child's action (e.g., "Bad boy. You should share the toys," "Tell him I'm unhappy about his behaviour").

Category:	Definition:
LOW	
Seek Explanation from Child	Ask the child for an explanation of the behaviour; discuss the problem.
Read to Child	Read the child a story pertaining to the issue of concern.
Support Child	Join child (not necessarily to play); provide emotional support in the situation.
Rescue	Help child escape or avoid situation.
Redirection	Channel child into new activity; divert attention; restructure the situation.
Seek Solution from Child	Ask child to suggest solution to problem (e.g., "Try to have him suggest what would be best to do, rather than me telling him what to do").
INDIRECT STRATEGIES	Strategies that do not involve either immediate or direct interaction with the child.
INFORMATION-SEEKING	
Consult/Seek Explanation from Other	Seek advice from or discuss with teacher, mental health professional, family member, or friend; do some reading. Asking someone for an explanation of the child's behaviour (e.g., "I'd talk to the teacher and find out why it happened").
Monitor	Keep an eye on the child's behaviour and/or ask someone else (e.g., teacher) to do so.

Category:	Definition:
PLANFUL	
Provide opportunity	Plan to create opportunities for child to play with others.
Restructure Play Arrangements	Plan to change situation (e.g., "perhaps parent-child group activities so I can correct situation as it develops").
Nurture	Provide child with more attention and affection; take care of child's physical needs.
NO RESPONSE	
No Response	Would do nothing.
OTHER	