

**ADULTS' PERCEPTIONS OF  
INTERNALIZING AND EXTERNALIZING BEHAVIOURS  
IN PRESCHOOLERS**

by  
Ruth Louise Coupland  
B.A., University of Manitoba 2004

Thesis Submitted in Partial Fulfilment  
of the Requirements for the Degree of

**Master of Arts**

in the Department  
of  
Psychology

© Ruth Coupland 2007  
SIMON FRASER UNIVERSITY  
2007

All rights reserved.  
This work may not be reproduced in whole or part, by photocopy or  
other means, without permission of the author.

## APPROVAL

**Name:** Ruth Coupland

**Degree:** Master of Arts (Psychology)

**Title of Thesis:** Adults' Perceptions of Internalizing and Externalizing Behaviours in Preschoolers

**Chair:** Dr. Mark Blair  
Assistant Professor

Dr. Arlene Young  
Senior Supervisor  
Associate Professor

Dr. Marlene Moretti  
Supervisor  
Professor

**External Examiner:** Dr. Lucy Le Mare  
Associate Professor  
Faculty of Education  
Simon Fraser University

**Date Defended :** July 27, 2007



SIMON FRASER UNIVERSITY  
LIBRARY

## **Declaration of Partial Copyright Licence**

The author, whose copyright is declared on the title page of this work, has granted to Simon Fraser University the right to lend this thesis, project or extended essay to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users.

The author has further granted permission to Simon Fraser University to keep or make a digital copy for use in its circulating collection (currently available to the public at the "Institutional Repository" link of the SFU Library website <[www.lib.sfu.ca](http://www.lib.sfu.ca)> at: <<http://ir.lib.sfu.ca/handle/1892/112>>) and, without changing the content, to translate the thesis/project or extended essays, if technically possible, to any medium or format for the purpose of preservation of the digital work.

The author has further agreed that permission for multiple copying of this work for scholarly purposes may be granted by either the author or the Dean of Graduate Studies.

It is understood that copying or publication of this work for financial gain shall not be allowed without the author's written permission.

Permission for public performance, or limited permission for private scholarly use, of any multimedia materials forming part of this work, may have been granted by the author. This information may be found on the separately catalogued multimedia material and in the signed Partial Copyright Licence.

While licensing SFU to permit the above uses, the author retains copyright in the thesis, project or extended essays, including the right to change the work for subsequent purposes, including editing and publishing the work in whole or in part, and licensing other parties, as the author may desire.

The original Partial Copyright Licence attesting to these terms, and signed by this author, may be found in the original bound copy of this work, retained in the Simon Fraser University Archive.

Simon Fraser University Library  
Burnaby, BC, Canada



**SIMON FRASER UNIVERSITY**  
THINKING OF THE WORLD

## STATEMENT OF ETHICS APPROVAL

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

(a) Human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

(b) Advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

(c) as a co-investigator, in a research project approved in advance,

or

(d) as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Bennett Library  
Simon Fraser University  
Burnaby, BC, Canada

## ABSTRACT

Across the lifespan, females are more likely to experience internalizing problems while males are more likely to experience externalizing problems. Recent theories in developmental psychopathology suggest that early gender role socialization by parents may play a role in creating these gender differences. The current study examined parents' level of concern regarding a wide range of internalizing and externalizing behaviours in descriptions of a hypothetical four-year-old boy or girl. Parents' sex role attitudes were also examined. Results indicated that parents did not differentially respond to boys and girls and that sex role attitudes did not affect this relationship. Both mothers and fathers rated externalizing behaviours as more concerning than internalizing behaviours for both boys and girls. This was notable given that clinical psychology graduate students specializing in child development rated the internalizing and externalizing behaviours as equally concerning. Implications for referral of internalizing problems to mental health services are discussed.

**Keywords:** Internalizing; Externalizing; Sex Role Attitudes; Preschoolers

**Subject Terms:** Internalizing; Externalizing; Developmental Psychopathology; Parent Attitudes; Parenting

## **ACKNOWLEDGEMENTS**

I would like to thank Arlene Young for all of her support and mentoring throughout my M.A. career. Arlene goes far beyond what is necessary to make herself available to her students for feedback and advice. I would also like to thank Marlene Moretti for her prompt feedback on drafts and her thought provoking questions.

I would like to thank the members of the Children's Social Emotional Development Lab for all of their support including listening to my ideas, giving constructive feedback, and making me laugh. I've very much enjoyed sharing a lab with all of you.

Jimmy Zhou Jialiang deserves many thanks for volunteering his time to help with data entry, coding and paperwork. Thank you for keeping me company during these tasks. I would also like to thank Melissa Northcott for volunteering her time and for introducing me to Jimmy.

I greatly appreciate all of the help I received from several students in the psychology program which included helping to validate some of the measures used in this project. I would also like to thank all of the parents who participated in this study and the friendly and helpful staff at Brentwood Town Centre.

I thank my parents for all of their support, without them I would not be here. I would also like to thank Richard Elias for his constant support and encouragement and for sharing his knowledge and love of statistics. Finally, I would like to thank the Social Sciences and Humanities Research Council and the Human Early Learning Partnership for providing funding for this project.

## TABLE OF CONTENTS

Approval .....	ii
Abstract .....	iii
Acknowledgements .....	iv
Table of Contents .....	v
List of Tables .....	vi
<b>Introduction</b> .....	<b>1</b>
Internalizing and Externalizing Behaviours .....	1
Gender Differences .....	2
Socialization of Gender Differences .....	3
Explaining Differential Socialization: Sex Role Attitudes .....	6
Current Study .....	8
Hypotheses .....	8
<b>Method</b> .....	<b>9</b>
Participants .....	9
Measures and Stimuli .....	10
Concern about Preschoolers' Behaviours (CPB; See Appendix B) .....	10
Sex Role Egalitarianism Scale Short Form .....	12
Procedure .....	12
<b>Results</b> .....	<b>13</b>
Preliminary Analyses .....	13
Main Analyses .....	16
<b>Discussion</b> .....	<b>18</b>
Differential Socialization of Displays of Distress in Girls and Boys .....	18
Sex Role Attitudes .....	20
Concern Ratings .....	21
Limitations and Directions for Future Research .....	24
Conclusion .....	25
<b>References</b> .....	<b>26</b>
<b>Appendices</b> .....	<b>30</b>
Appendix A .....	31
Appendix B .....	32
Appendix C .....	34
Appendix D .....	35
Appendix E .....	37

## LIST OF TABLES

Table 1:	Descriptive statistics of study variables for male and female participants. ....	13
Table 2:	Means and standard deviations of concern ratings by participant gender and ethnicity. ....	15



## INTRODUCTION

Emotional and behavioural problems that occur in childhood can be divided into two broad syndromes of internalizing and externalizing behaviours. While there is a great deal of overlap, girls are more prone to internalizing disorders while boys are more prone to externalizing disorders. These gender differences are well documented in recent literature (e.g. Hartung & Widiger, 1998; Oldehinkel, Hartman, De Winter, Veenstra, & Ormel, 2004; Scaramella, Conger, & Simons, 1999), but little research has examined why these differences may exist. One possibility that has been suggested by prominent researchers in childhood psychopathology is gender role socialization (Zahn-Waxler, 1993; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). Internalizing behaviours tend to be stereotypical female behaviours such as worrying or crying, while externalizing behaviours tend to be stereotypical masculine behaviours such as yelling or hitting. It is possible that gender socialization increases the likelihood of at risk girls to develop internalizing problems while increasing the likelihood of at risk boys to develop externalizing problems. One possible mechanism for this socialization is parents' responses to children's internalizing and externalizing behaviours. When a girl is in distress it is possible that her parents will respond more positively if she displays internalizing behaviours rather than externalizing. For example, if she stubs her toe, her parents may be more likely to comfort her if she cries rather than if she kicks the offending object. In the future when under distress, she may be more likely to display internalizing behaviours. Thus, parents may shape how their children display distress even when the source of distress lies outside of the parent-child relationship.

### **Internalizing and Externalizing Behaviours**

Internalizing problems are characterized by withdrawn behaviour, feelings of anxiety and depression, and somatic complaints (Wicks-Nelson & Israel, 2000). Withdrawn behaviour includes preferring to be alone, being shy or timid, and not talking. Depressed or anxious behaviours include crying often, having many fears, and worrying, while somatic complaints include nightmares, nausea, and aches. If internalizing problems are severe enough to interfere with a child's adjustment, the child may meet criteria for an internalizing disorder such as Separation Anxiety Disorder or Depression.

Externalizing problems are characterized by delinquent and aggressive behaviour (Wicks-Nelson & Israel, 2000). Delinquent behaviour involves rule breaking, such as misbehaving, lying, and running away from home. Aggressive behaviours include damaging one's own or others belongings, threatening others, getting in fights, and yelling. If externalizing problems are severe enough to interfere with a child's adjustment, the child may meet criteria for an externalizing disorder such as Conduct Disorder, or Oppositional Defiant Disorder.

### **Gender Differences**

Internalizing behaviours tend to be more characteristic of girls, whereas externalizing behaviours tend to be more characteristic of boys. In a summary by Hartung and Widiger (1998) of reported sex differences in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000), this pattern is clearly demonstrated. Disorders characterized by externalizing symptoms tend to be predominated by males. For example, in children, boys are more than twice as likely as girls to be diagnosed with attention deficit disorder, oppositional defiant disorder and conduct disorder than girls (Cuffe, Moore, & McKeown, 2005; Maughan, Rowe, Messer, Goodman, & Meltzer, 2004). In adults, males are twice as likely as females to have antisocial personality disorder (Fazel, & Danesh, 2002), and substance abuse problems (Grant, Dawson, Stinson, Chou, Dufour, & Pickering, 2004).

Disorders characterized by internalizing symptoms tend to be predominated by females. In children, girls have higher reported rates of some internalizing problems such as separation anxiety disorder and selective mutism than boys (Hartung & Widiger, 1998). In adults, women are more than twice as likely as men to be diagnosed with depressive disorders, anxiety disorders and somatoform disorders (Kessler, McGonagle, Zhao, & Nelson, 1994). While gender differences are found in childhood for some anxiety disorders (e.g. selective mutism and separation anxiety disorder), gender differences are not usually found in the prevalence of other anxiety disorders or depression in preschoolers and young children. Several longitudinal studies examining preadolescent and adolescent youth have found higher rates of internalizing problems (such as anxiety and depression) in girls (Dekovic, Buist, & Reitz, 2004; Hankin, Mermelstein, & Roesch, 2007). Longitudinal studies examining internalizing symptoms from preschool to preadolescence are much more uncommon. Sterba, Prinstein, and

Cox, (2007), examined trajectories of internalizing symptoms in children from age two to eleven years old. Although no gender differences were found in overall rate of internalizing symptoms, gender differences were found in the trajectories of symptoms. More girls (21%) had elevated and stable symptoms than boys (13%). Of children with unstable symptoms, girls were more likely to have increases in internalizing symptoms and less likely to have decreases in symptoms than boys. Thus, while there may not be overall gender differences in internalizing symptoms in early childhood, there appear to be gender differences in trajectories of internalizing symptoms that begin very early in childhood. These gender differences in trajectories may result in girls being more prone to developing internalizing disorders in adolescence than boys.

### **Socialization of Gender Differences**

Prominent researchers in childhood psychopathology have highlighted the importance of examining the differential socialization of boys and girls when studying gender differences in internalizing and externalizing behaviours. In a review of internalizing problems in childhood and adolescence, Zahn-Waxler et al., (2000) concluded that “differential treatment of boys and girls may create conditions that predispose females more often than males to anxiety and depression.” In this review studies are cited that theoretically support this statement including that girls are more likely to be reinforced for shyness and dependency than boys. At this point, however, no studies have empirically examined if parents do respond differently to a range of internalizing behaviours of clinical concern in girls and boys.

In a separate review, Zahn-Waxler (1993) also examined gender differences in externalizing disorders. Again, she highlighted the importance of socialization. In this review Zahn-Waxler posited that adults may be more tolerant of aggressive behaviours in boys than in girls. This tolerance may send the implicit message to boys that it is okay to engage in aggressive behaviours such as bullying. By accepting these behaviours adults may miss out on opportunities to intervene in early externalizing problems in boys. Despite the importance of this area of research, to date, no studies have examined parental attitudes towards a wide range of externalizing behaviours in boys and girls.

Until recently, research into the differential socialization of girls and boys has been inconsistent and it was unclear whether or not there were any ways which parents interacted differently with boys and girls (Lytton & Romney, 1991; Maccoby & Jacklin,

1974). In an extensive review of family contexts of gender development, McHale, Crouter, and Whiteman, (2003), criticize the methodology of past research in gender socialization for several reasons. In particular, most studies failed to capture more subtle ways that adults may differentially socialize boys and girls because they focused on parents' overall interaction styles with children rather than specific interactions. For example, studies examining overall parental warmth towards boys versus girls (Lytton & Romney, 1991) have generally not found significant differences. It is possible, however, that parents may express more warmth towards girls than boys in certain situations, and more towards boys in other situations without affecting the overall amount of warmth displayed to both genders. For example, parents may display more warmth towards a girl who is playing with dolls than a girl who is running around the house and show the opposite pattern for boys. This level of analysis examining a range of internalizing and externalizing behaviours has not been included in the research to date.

Until recently, research examining gender socialization has also not included concepts such as parents' beliefs about how boys and girls should behave (McHale et al., 2003). Parents who hold traditional sex role beliefs may respond to boys who display a certain type of behaviour differently than they would respond to girls who display the same behaviour. For example, if a boy becomes upset and begins to cry, his parents may tell him that big boys don't cry, whereas if a girl were to become upset and cry she may be picked up and held. Parental sex role beliefs may help to explain inconsistencies found in early research examining the parenting of boys and girls; differences in the sex role beliefs of parents included in various samples may have differentially influenced results across studies.

Another concern with research examining perceptions of boys and girls is the way that gender is often manipulated in studies. Many researchers choose to manipulate gender in vignettes or stimuli by changing the name and pronouns of their stimuli character to represent either a boy or girl. As noted in several research studies (see Kasof, 1993), some names tend to be rated more favourably than others regardless of the gender of the name. As a result, differences attributed to gender may be confounded with name preference. For example, if a more favourable boy name is paired with a less favourable girl name, then the girl is likely to be rated less favourably as a result of her name rather than her gender. These findings suggest that gender differences (or lack of gender differences) reported in previous studies may in part reflect name effects.

Several studies do provide evidence suggesting that parents believe that internalizing displays of distress are more appropriate for girls whereas externalizing displays of distress are more appropriate for boys. When talking about past events, mothers of preschoolers were shown to be more likely to talk about sadness with girls than with boys, and more focused on comforting girls about sadness than boys (Fivush, 1991). Mothers also talked more about anger with boys than with girls, and were more accepting of retaliation and anger in response to anger from boys than from girls. Mothers (and potentially fathers) may see sadness as more normative or appropriate for girls and, as a result of this, have more interactions with girls focused on sadness. Similarly, mothers may see anger as more normative or appropriate for boys and have more interactions with boys focusing on anger. In support of this, one longitudinal study found that as children grow older, mothers become more negative about aggression in girls and less negative about aggression in boys (Mills & Rubin, 1992).

Parents of preschoolers also appear to talk about boys' and girls' distress differently in discussions with other adults. For example, when talking about physical injuries that preschoolers had experienced, fathers of sons were more likely to explicitly state that their child was not upset than were fathers of daughters (Peterson, 2004). This was unrelated to the actual behaviour of the child. Differences in how parents discuss boys' and girls' distress when hurt may reflect how appropriate they believe it is for boys and girls to be upset when hurt. It is possible that parents tend to believe that it is more acceptable for girls to become upset when hurt than it is for boys.

Not only do parents talk differently about displays of distress in boys and girls, they also tend to interpret displays of distress differently depending on whether the distress is displayed by a boy or a girl. Condry and Condry (1976) designed a study where adults were shown a videotape of a nine month old infant dressed in gender neutral clothing being shown a jack-in-the-box. The videotape includes the baby responding to the jack-in-the-box with an initial startle response and then, on subsequent presentations, becoming more agitated and beginning to cry. Adults who were told the baby was a girl tended to report that the baby was experiencing fear, whereas adults who were told the baby was a boy tended to report the baby was experiencing anger. Given previously established findings that adults are more likely use stereotypes to interpret children's ambiguous behaviour if no other information is available (Fagot, Hagan, Leinbach, & Kronsberg, 1985), these interpretations may reflect how normative

adults perceive different displays of distress to be in girls and boys. It is possible that fear is seen as more normative for girls while anger is seen as more normative for boys.

In a similar study, adults were shown a video of two preschool children dressed in gender neutral snowsuits playing aggressively in the snow (Condry & Ross, 1985). The adults who were told that the children were both boys tended to rate the children as less aggressive than those told that one or both of the children were girls. In other words, identical behaviour was interpreted as less aggressive when the behaviour was thought to be displayed by boys rather than by girls or by a boy and a girl ( $d = .79$ ). This suggests that adults are more tolerant of aggressive behaviour or think that aggressive behaviour is more acceptable when only boys are involved.

These studies provide evidence that parents tend to see internalizing displays of distress as more appropriate for girls and externalizing displays of distress as more appropriate for boys. No studies, however, have examined gender differences in parents' attitudes towards a range of internalizing and externalizing behaviours in boys and girls. The current study addresses this gap in the literature by explicitly examining parents' attitudes regarding a wide range of internalizing and externalizing behaviours in preschool boys and girls and the influence that parental beliefs regarding gender more generally (sex role attitudes) have on interpretations of child behaviour.

### **Explaining Differential Socialization: Sex Role Attitudes**

Sex role attitudes are beliefs that an individual holds about how males and females should behave. This includes beliefs about the roles males and females should play in the family, workplace, and social sphere. For example, someone with traditional sex role beliefs might believe that women should be responsible for child-rearing, while men should be responsible for finances. Someone with egalitarian beliefs would believe that men and women should have equal roles in child-rearing and finances.

When interacting with infants and preschoolers, it is likely that adults use their sex role attitudes as schemas for interpreting children's often ambiguous behaviour (Condry & Condry, 1976; Fagot et al., 1985). As described above, this may lead to differential interpretations of children's behaviours which may affect how parents respond to children who are in distress.

As children age, it is possible that they will be perceived negatively for engaging in behaviours that are inconsistent with sex role attitudes held by others. Eagly (2004)

theorizes that if an individual exhibits qualities that are inconsistent with an onlooker's stereotyped beliefs about that individual, then that individual will be perceived negatively. In other words, if a little boy cries when hurt, and his parent believes that boys should not cry, then the parent will likely respond negatively to the little boy, perhaps making him less likely to cry when hurt in the future.

A handful of studies have linked parents' sex role attitudes to parents' understanding of child behaviour and to differences in child behaviour. For example, Tiedemann, (2000) examined the relationship between parents of elementary school children's sex role beliefs and their beliefs about their child's math achievement. Results showed that parents with more traditional sex role attitudes were more likely to attribute girls' achievement to effort and boys' achievement to ability than were parents with more egalitarian beliefs. Parents who had more traditional beliefs about gender also assigned lower ability scores to their daughters than sons. Parents' beliefs in turn were related to their children's beliefs about mathematics and self-concepts about their mathematical abilities. This study demonstrates that parent's sex role attitudes can have important effects on the socialization of boys' and girls' self-perceptions.

In a study examining relationships between parents and siblings, McHale, Crouter, and Tucker, (1999) found that siblings who had fathers with more traditional sex role beliefs tended to have more gender stereotyped personalities. For example, sisters who had more traditional fathers tended to be more emotionally expressive than sisters who had less traditional fathers. This finding is important because it demonstrates a link between parental sex role beliefs and actual child behaviour.

Past literature indicates that men tend to have more traditional sex role attitudes than women (e.g., Elias, 2006; Kaufman, 2000; King & King, 1993). Research regarding the socialization of gender has also shown that fathers rather than mothers tend to be more concerned about their children acting in non-gendered ways. For example, fathers are more disapproving of preschool children playing with gender incongruent toys than are mothers (Langlois & Downs, 1980). On the other hand, more recent research (Elias, 2006) has found that while men tend to have more traditional beliefs, women may be more likely to act on these traditional beliefs. Because there is reason to believe that the relationship between sex role beliefs and beliefs about children's behaviour may be different for men than for women, the current study included both mothers and fathers.

### **Current Study**

In the current study I examined the relationship between parental sex role beliefs and level of concern regarding internalizing and externalizing behaviours in preschool aged boys and girls. Parents read descriptions of children's behaviours and were asked to rate how concerning they found each of the behaviours. Examining sex role attitudes in this study was extremely important, as studies looking at other areas of children's functioning (e.g., Tiedemann, 2000), have found that sex role attitudes moderate differential responding to boys and girls. Thus, parents with more egalitarian beliefs may be less likely to respond differentially to girls and boys behaviours, whereas parents with more traditional beliefs may be more likely to respond differentially to boys and girls behaviours. I assessed the relationship between parents' sex role attitudes and their responses to stimuli describing preschool aged boys and girls demonstrating both internalizing and externalizing behaviours.

### **Hypotheses**

In this study, it was hypothesized that parents would be more concerned about gender stereotyped incongruent behaviours (i.e., internalizing behaviours exhibited by boys and externalizing behaviours exhibited by girls) than gender stereotyped congruent behaviours (i.e., externalizing behaviours exhibited by boys and internalizing behaviours exhibited by girls). It was further hypothesized that sex role attitudes would moderate this relationship. Specifically, the following hypotheses were examined in this study:

1. Parents will rate girls' externalizing behaviours as more concerning than girls' internalizing behaviours.
2. Parents will rate boys' internalizing behaviour as more concerning than boys' externalizing behaviours.
3. Parents will rate boys' internalizing behaviours as more concerning than girls' internalizing behaviours.
4. Parents will rate girls' externalizing behaviours as more concerning than boys' externalizing behaviours.
5. Sex role attitudes will moderate the relationship between concern ratings and child gender in the following way: Parents with more traditional sex role attitudes will be more concerned about gender-stereotyped incongruent behaviour than participants with more egalitarian sex role attitudes.



## METHOD

### Participants

Participants for this study were recruited from three sources. Approximately a third of the participants had previously participated in studies within the Children's Social Emotional Development Lab, Simon Fraser University. These participants were contacted by phone and asked to participate in the study. The remainder of the participants were recruited from two community settings in the Lower Mainland. Community settings included a shopping centre with a large preschool child play area and a trade fair for parents of babies and young children. In both settings, consent to approach potential participants was obtained from the setting management before any potential participants were approached. Because the focus of this study was on parental socialization of preschoolers, potential participants in this study were required to have a child 3 to 5 years old and be able to read English. Only one parent per family participated in the study. In all settings where participants were recruited, if fathers were present, they were approached to participate in the study. If mothers were present and were not accompanied by their child's father, they were approached to participate in the study. This strategy was used to obtain equal numbers of mothers and fathers in the study.

One hundred and thirty-five mothers and 136 fathers of 3 to 5 year old children participated in this study. Sixty-two percent of parents identified themselves as Caucasian, 32% as Asian and 8% as other. Participants' mean age was 36.81 ( $SD = 5.33$ ) years old, and ranged from 24 years old to 53 years old. Twenty-two percent of participants indicated that they had not completed a post-secondary education, 25% had completed college, and 52% had completed university. Parent gender, ethnicity, age and education were examined in preliminary analyses (see Results Section) to assess whether or not they affected the relationship between concern ratings and sex role attitudes.

Participants were asked to complete a demographic form (see Appendix A) which requested information on their marital status, the number of children they had, and the gender and ages of their children. Parents were free to omit information from the demographic form and they were informed of this in keeping with the ethical

requirements for conducting this study. Many opted not to include specific information on their families or the children within their families. Due to the high percentage of missing or incomplete data regarding family status, number of children and children's ages and gender, it is not possible to report on this information. All participants did report, however, that they had at least one child who was 3 to 5 years old.

## **Measures and Stimuli**

### **Concern about Preschoolers' Behaviours (CPB; See Appendix B)**

Several stimuli items were needed to assess how concerned parents are about a wide range of internalizing and externalizing problems. A set of 40 items describing behaviours of a hypothetical four-year-old child were created. Half of the behavioural descriptions were internalizing behaviours while the other half were externalizing. For each set of internalizing and externalizing behaviours, half of the items were developmentally normative behaviours and the remainder met criteria for clinical diagnoses of internalizing and externalizing disorders in childhood. Normative behaviour items were included to reduce the possibility of ceiling effects. Examples of internalizing behaviour descriptions are "Sara often cries when she is overtired" and "Sometimes Sara talks about wanting to die." Examples of externalizing descriptions are "Sara sometimes teases other children at her preschool" and "When Sara is angry with someone she may cruelly kick or hit them." Each behaviour was rated on a Likert Scale from 1 to 7 with 1 being "Not at all Concerning" and 7 being "Extremely Concerning."

Before being used in the study, the content of the behavioural descriptions were validated by 11 clinical psychology graduate students specializing in child development. Each graduate student rated a gender neutral version of the behaviours (e.g., "Sometimes talks about wanting to die" rather than "Sara sometimes talks about wanting to die."). These students were also asked whether or not they believed the behaviours were internalizing, externalizing, both, or neither. Behaviours that were not rated consistently as being internalizing or externalizing were removed. The final stimuli sets used in this study included 17 internalizing items and 17 externalizing items. Because level of concern regarding internalizing items was being compared with level of concern regarding externalizing items (and vice versa), it was important that mean ratings of internalizing and externalizing items be comparable. The students' mean rating for the

internalizing items was 64 ( $SD = 13$ ) and for externalizing items it was 63 ( $SD = 18$ ). These means are very similar and indicate that the students found the internalizing and externalizing items to be equally concerning. The possible range for both the internalizing and externalizing items was 17 to 119.

The behavioural descriptions were then used to create two sets of stimuli items, one for rating girls' behaviours and one for rating boys' behaviours. Each stimulus set included both the 17 internalizing and the 17 externalizing items, presented in a random order. Only the described child names and gender related pronouns varied across stimulus sets. For example, "Sara sometimes teases other children at her preschool" for the girl stimuli set and "James sometimes teases other children at his preschool" for the boy stimuli set. To reduce carryover effects, each participant only rated one stimuli set (i.e., they rated either a boy or a girl).

Child names were randomized to control for possible bias associated with a particular name or names. For each participant, the name of the child in the stimuli set was randomly assigned without replacement from a list of names (i.e., each parent's stimuli set had a unique name; Giles, & Heyman, 2005). The list of names used was created from a provincial government listing of the most popular baby names from four years prior to the study (the year that the hypothetical child would have been born; BC Vital Statistics, n.d.). Gender neutral names (e.g. Jamie, Chris) were not used.

Each set of stimuli items was preceded with these instructions:

Parents sometimes get concerned about the way their children behave. Imagine that (child name) is your (son/daughter). (Name) is a four year old (boy/girl). We are interested in how concerned you would become if (Name) behaved in each of the ways listed below. Please indicate your level of concern using the scale below by circling the appropriate number for each item.

Boy names and "son" were used in the boy stimuli set and girl names and "daughter" were used in the girl stimuli set. Parents rated each item on a Likert Scale from 1 to 7 with 1 being "Not at all Concerning" and 7 being "Extremely Concerning." Both the internalizing and externalizing items for the full sample demonstrated excellent internal consistency (for internalizing items  $\alpha = .90$  and for externalizing items  $\alpha = .93$ ).

### **Sex Role Egalitarianism Scale Short Form**

Sex role attitudes were assessed using the Sex Role Egalitarianism Scale-Short Form BB (SRES; King & King 1993). The SRES is a 25-item self-report scale. It is rated on a 5-point Likert Scale ranging from “strongly agree” to “strongly disagree.” Higher scores reflect more egalitarian sex role attitudes (possible range = 25 to 125; observed range = 71 to 125). The SRES has demonstrated excellent internal consistency (coefficient alpha ranges .89 to .92), good reliability (3 week test-retest  $r = .88$ ) and good construct validity (King & King, 1997). The SRES has been shown to have only negligible associations with ratings of social desirability (King & King, 1993). It is the only measure of egalitarianism that includes items pertaining to both women and men.

### **Procedure**

Participants who were contacted by phone and agreed to participate in the study were mailed a questionnaire package. The questionnaire package included a study information document (Appendix C), a consent form (Appendix D), the CPB, the SRES, the demographic form and a return envelope with postage paid. The CPB was counterbalanced for child sex such that each participant rated behaviours for either a boy or a girl. All participants were told that the study “examines how concerned parents are about behaviours of preschoolers, and parent’s beliefs about their roles in their home and society.” All participants were also sent a five dollar gift certificate for a local coffee company to thank them for their participation.

Potential participants from the community settings were asked if they would be willing to participate in a short study looking at how parents understand problem behaviours in preschoolers. If parents agreed to participate and met the inclusion criteria, the study information document and consent form were explained to the participants. After signing the consent form, they were asked to complete the CCB and then the SRES and the demographic form. After completing the measures, the participants were given a five dollar gift certificate for their participation.

## RESULTS

### Preliminary Analyses

Past research has demonstrated that males tend to have more traditional sex role beliefs than females (e.g., Elias, 2006; Kaufman, 2000; King & King, 1993) and that sex role attitudes as measured by the SRES may lead to different outcomes for males and females (Elias, 2006). To test whether or not males in this study had more traditional beliefs than females, a *t*-test was conducted. Males were found to have significantly more traditional beliefs than females,  $t(266) = -4.56$ ,  $p < .001$ ,  $d = .54$ . Descriptive statistics of the independent variables by participant sex are listed in Table 1. Correlations between Sex Role Attitudes and Concern Ratings are presented in Appendix E.

**Table 1: Descriptive statistics of study variables for male and female participants.**

Study Variables	Descriptive Statistics		
	<i>N</i>	<i>M</i>	<i>SD</i>
Internalizing			
Male Participants	136	72.4	17.6
Female Participants	132	72.9	14.5
Externalizing			
Male Participants	136	80.4	17.7
Female Participants	132	81.0	18.0
SRES			
Male Participants	133	101.7	12.9
Female Participants	135	108.7	12.0

Given that one of the key variables of interest in this study was sex role attitudes, two groups were formed, representing traditional (low SRES) and egalitarian (high SRES) sex role attitudes, to be used in subsequent ANOVAs. Because sex role attitudes varied significantly by participant sex, and sex role attitudes may have different effects for male and female participants (Elias, 2006), groups were created separately for male and female participants and all subsequent analyses were performed separately for male and female participants. To increase the sensitivity of subsequent ANOVAs, three groups, with equal numbers of participants, were created for both male and female

participants. Those participants with the highest SRES scores were placed in the Egalitarian Sex Role Attitudes Group and those with the lowest SRES scores were placed in the Traditional Sex Role Attitudes Group. The middle group was excluded from subsequent analyses.

Given that norms regarding gender roles and norms regarding child behaviours may vary across different demographic groups, a series of analyses was conducted to determine if ethnicity, level of education, or age should be included as covariates in the main analyses. To test whether these variables affected the relationship between sex role attitudes, concern ratings, and child sex, two ANOVAs and an ANCOVA were conducted.

The first ANOVA examined the relationship between the ethnicity of the participants, SRES scores, child sex, and concern ratings. A mixed ANOVA with three between subject factors [2 (Child Sex)  $\times$  2 (Sex Role Attitudes)  $\times$  3 (Ethnicity)]  $\times$  one within subject factor [2 (Concern Ratings)] was used to test this relationship. The three levels of ethnicity were participants who identified themselves as Caucasian, Asian, or other. For male participants there was a significant main effect for ethnicity,  $F(2, 79) = 4.02$ ,  $p = .02$  partial  $\eta^2 = .09$ . Bonferroni post hoc tests revealed that Asian male participants rated internalizing and externalizing problems as significantly more concerning ( $p < .05$ ) than did Caucasian male participants. The main effect for ethnicity of female participants was non-significant. There were no significant two- or three-way interactions between ethnicity, sex role attitudes and concern ratings for either male or female participants. Thus, while ethnicity affected how male participants rated children's behaviours, ethnicity did not affect the relationship between sex role attitudes and concern ratings. There were also no significant interactions between ethnicity, child sex, and concern ratings indicating that ethnicity did not affect the relationship between ratings of internalizing and externalizing problems for boys and girls. Given the lack of interaction effects and issues of reduced power, ethnicity was not included in any further analyses. Descriptive statistics of concern ratings by ethnicity and gender are listed in Table 2.

**Table 2: Means and standard deviations of concern ratings by participant gender and ethnicity.**

Ethnicity	Child Sex											
	Boy						Girl					
	Internalizing			Externalizing			Internalizing			Externalizing		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Caucasian												
Male	39	71.5	13.6	39	81.6	13.1	37	68.5	11.4	37	78.9	12.7
Female	46	71.4	15.3	46	78.1	17.9	39	70.0	14.6	39	79.2	20.9
Asian												
Male	24	69.9	24.2	24	76.6	24.3	24	83.0	21.1	24	88.2	20.6
Female	19	77.5	8.9	19	85.1	10.4	20	77.5	16.9	20	86.3	17.5
Other												
Male	5	83.2	13.0	5	85.2	10.3	6	64.0	15.6	6	66.8	22.7
Female	4	71.5	11.4	4	80.0	20.1	3	79.7	8.3	3	84.3	18.1

A second ANOVA was conducted to examine the relationship between the education level of the participants, SRES scores, child sex, and concern ratings. A mixed ANOVA with three between subject factors [2 (Child Sex)  $\times$  2 (Sex Role Attitudes)  $\times$  3 (Education)]  $\times$  one within subject factor [2 (Concern Ratings)] was used to examine these relationships. The three levels of education were created as follows: participants who had not completed post secondary education; participants who had completed college; and participants who had completed university. There were no significant main or interaction effects for education for either male or female participants. Because there were no effects of level of education on the variables of interest, level of education was not included in further analyses.

Finally, an ANCOVA was conducted to examine the relationship between the age of the participants, SRES scores, child sex, and concern ratings. A mixed ANCOVA with two between subject factors [2 (Child Sex)  $\times$  2 (Sex Role Attitudes)]  $\times$  one within subject factor [2 (Concern Ratings)] with age as a covariate, was used to examine these relationships. There were no significant effects for age for male participants. For female participants the main effect for age was significant,  $F(1, 87) = 4.42$ ,  $p = .04$  partial  $\eta^2 = .05$ . A correlation analysis revealed that as female participants' age increased their concern ratings of both internalizing ( $r = .23$ ,  $p < .001$ ) and externalizing ( $r = .25$ ,  $p < .001$ ) behaviours also increased. There were no significant two- or three-way

interactions for age for female participants. Thus, while age affected how female participants rated children's behaviours, age did not affect the relationship between sex role attitudes and concern ratings. Age also did not affect the relationship between ratings of internalizing and externalizing problems for boys and girls. Given the lack of interaction effects and issues of reduced power, age was not included in any further analyses.

### Main Analyses

A mixed ANOVA with two between subject factors [2 (Child Sex) × 2 (Sex Role Attitudes)] × one within subject factor [2 (Concern Ratings)] was used to test all of the hypotheses in this study. A mixed ANOVA was deemed the most appropriate statistical technique for this study due to several factors. First, the dependent variable included two levels and the hypotheses predicted relationships between these levels. Second, the hypotheses included predictions regarding both within-subject and between-subject interactions. Third, all hypotheses made predictions about two- and three-way interactions.

Hypothesis 1 predicted that girls' externalizing behaviours would be rated as more concerning than their internalizing behaviours and Hypothesis 2 predicted that boys' internalizing behaviours would be rated as more problematic than their externalizing behaviours. Hypothesis 1 and 2 were tested by examining the within subject interaction between Concern Ratings and Child Sex. This interaction was not significant for ratings made by either male,  $F(1, 87) = .863, p = .35, \text{partial } \eta^2 = .01$ , or female,  $F(1, 88) = .00, p = .98, \text{partial } \eta^2 = .00$ , participants. These results do not support Hypotheses 1 or 2 as parents did not differentially respond to problematic behaviours displayed by boys and girls. A significant main effect for Concern Ratings was found for both male,  $F(1, 87) = 61, p < .001, \text{partial } \eta^2 = .42$ , and female participants,  $F(1, 88) = 50, p < .001, \text{partial } \eta^2 = .36$ , where externalizing behaviours were rated as more concerning than internalizing behaviours for both boys and girls. Thus, while parents rated girls' externalizing behaviours as more concerning than their internalizing behaviours, which partially supports Hypothesis 1, parents did not differentially respond to boys and girls.

Hypothesis 3 predicted that participants would rate boys' internalizing behaviours as more concerning than girls' internalizing behaviours. Similarly, Hypothesis 4 predicted



that participants would rate girls' externalizing behaviours as more concerning than boys' externalizing behaviours. Hypothesis 3 and 4 were tested by examining the interactions for Ratings of Concern and Child Sex. As stated above, the interaction between Child Sex and Concern Ratings was not significant for male nor female participants. The main effect for Child Sex was also not significant for male,  $F(1, 87) = .24, p = .63, \eta^2 = .00$  nor female,  $F(1, 88) = .01, p = .91, \eta^2 = .00$  participants. These results indicate that boys' internalizing and externalizing behaviours were rated similarly to girls' internalizing and externalizing behaviours. Thus, neither Hypothesis 3 nor 4 were supported.

Hypothesis 5 predicted that sex role attitudes would moderate the relationship between concern ratings and child gender such that parents with more traditional sex role attitudes would be more concerned about gender-stereotyped incongruent behaviour than parents with more egalitarian beliefs. This hypothesis was tested by examining the interactions between Sex Role Attitudes, Concern Ratings, and Child Sex. For both male and female participants, both the two-way interaction between Sex Role Attitudes and Concern Ratings (male participants:  $F(1, 87) = .12, p = .73, \text{partial } \eta^2 = .00$ ; female participants:  $F(1, 88) = .31, p = .58, \text{partial } \eta^2 = .00$ ) and the three-way interaction between Sex Role Attitudes, Concern Ratings, and Child Sex (male participants:  $F(1, 87) = .25, p = .62, \text{partial } \eta^2 = .00$ ; female participants:  $F(1, 88) = 3.29, p = .07, \text{partial } \eta^2 = .04$ ) were non-significant. For female participants, the main effect for Sex Role Attitudes was significant,  $F(1, 88) = 4.65, p < .0, \text{partial } \eta^2 = .05$ . Female participants with traditional sex role attitudes rated both internalizing and externalizing problems for boys and girls as more concerning than did female participants with egalitarian sex role beliefs. This relationship was not found for male participants.

## DISCUSSION

### **Differential Socialization of Displays of Distress in Girls and Boys**

This study assessed the relationship between parents' sex role attitudes and their responses to descriptions of preschool aged boys' and girls' internalizing and externalizing behaviours. It was hypothesized that parents would be more concerned about gender stereotyped incongruent behaviours (i.e., internalizing behaviours exhibited by boys and externalizing behaviours exhibited by girls) than gender stereotyped congruent behaviours (i.e., externalizing behaviours exhibited by boys and internalizing behaviours exhibited by girls). The results of this study did not support these hypotheses. While parents rated girls' externalizing behaviours as more problematic than their internalizing behaviours, they also rated boys externalizing behaviours as more problematic than their internalizing behaviours. Participants did not differentially respond to boys' and girls' behaviours.

These results provide little support for gender socialization playing a key role in creating the gender differences found in the rates of internalizing and externalizing disorders. Parents were equally as concerned about internalizing behaviours in boys and girls. They were also equally concerned about externalizing behaviours in boys and girls. While these results are not consistent with recent theories in the developmental psychopathology literature (e.g., Zahn-Waxler, 1993, Zahn-Waxler et al., 2000), they are not entirely unexpected. There are several possible explanations for the obtained results.

First, it is possible that there are no gender differences in the socialization of boys' and girls' displays of distress. Thus, parents may find it equally appropriate for both boys and girls to display both internalizing and externalizing behaviours. Meta analyses and reviews of studies examining the differential socialization of boys and girls (e.g., Lytton & Romney, 1991; Maccoby & Jacklin, 1974), have found many inconsistencies in past research and have indicated that parents may not respond differently to boys and girls. The current study supports this interpretation of past results.

Many past studies that have found evidence of differential responding to boys and girls behaviours used vignettes that had been manipulated for gender by changing the name and pronouns of their stimuli character to represent either a boy or girl. As

previously discussed, this may create a confound between name ratings and child sex ratings (Kasof, 1993). The names used in the current study were drawn without replacement from a list of the most popular baby names in British Columbia in the year that the hypothetical child would have been born. By randomizing the name of the child, the possibility of confounding ratings of a name with ratings of child sex was controlled for. Sex differences reported in some other studies may, at least in part, have reflected a name effect, which was controlled in the current study.

Even if sex differences in socialization played a key role in the development of internalizing and externalizing behaviours in the past, it is possible that differential socialization is less present today. Gender roles in society have changed drastically in recent years. More moms than ever before are entering the workplace (Human Resources Development Canada, 2001), and more dads are choosing to stay at home and raise their children (Marshall, 1998). Statistically, there has been an increase in externalizing problems in girls (e.g., Savioe, 1999), though it is unclear whether there has been an equal increase of internalizing problems in boys. It is possible that gender differences in socialization found in the past are no longer common today.

While there are several reasons to believe that differential socialization is not currently playing a role in shaping the sex differences found in boys' and girls' displays of distress, there are also several reasons to believe that differential socialization is still playing a role. Recent studies that examined parents' interactions with their own children (rather than using vignettes) did find evidence of differential socialization. For example, fathers were shown to be more likely to say that sons who had been physically injured were not upset than to say that daughters who had been injured were not upset (Peterson, 2004); mothers are more likely to talk about sadness with daughters than with sons (Fivush, 1991); and mothers become more negative about aggression in girls and less negative about aggression in boys over time (Mills & Rubin, 1992). These examples indicate that differential socialization of displays of distress in boys and girls is currently occurring in everyday interactions between parents and their children. It is possible that the stimuli used in the current study were too abstract to assess subtle differences in the ways parents may respond differently to boys and girls.

Another explanation for the obtained results is that while parents may be equally concerned about the same behaviours in boys and girls, they may be more approving of certain behaviours displayed by girls and boys. Research examining sex discrimination

in adults has shown that women engaging in behaviours that are incongruent with their stereotyped sex role tend to be rated negatively (Eagly, 2004). In the current study, parents were not asked to rate whether they approved or disapproved of the child's displayed behaviour. It is possible that parents may have been more disapproving of incongruent behaviours even though they did not find incongruent behaviours more concerning.

### **Sex Role Attitudes**

The final hypothesis in the current study was that participants with more traditional sex role attitudes would be more concerned about gender-stereotyped incongruent behaviour than participants with more egalitarian sex role attitudes. This hypothesis was not supported; parents with more traditional sex role attitudes did not differentially respond to boys' and girls' behaviours. This finding is particularly confusing given the purpose of the SRES. King and King (1993, p.3) state that this measure was developed to "measure attitudes towards the equality of men and women" and can be used to study gender based stereotyping. In the current study this measure was not associated with responses to gender based stereotyped behaviours. There are a few possible reasons why participants with more traditional sex role attitudes did not differentially respond to boys and girls. The first is that the items on the SRES refer only to adult behaviour. The child described in the current study was only four years old. It is possible that the sex role attitudes measured by the SRES are not applicable to such a young child. Perhaps if the behaviours of an older child or adolescent had been described in the study, the participants would have been more likely to respond differentially to boys and girls. Another possibility is that there were not enough participants with extremely traditional sex role attitudes in this study. High and low groups were created from observed scores on the SRES rather than from an objective cutoff point (which is not defined in the SRES manual). While there was variability in the SRES scores, the observed range was only 71 to 125 while the possible range was 25 to 125. This means that the participants in the traditional sex role attitude group only had moderately traditional sex role attitudes. Participants with more extreme traditional sex role attitudes may have been more likely to respond differentially to boys and girls than the participants found in this study.

Males in this study were found to have more traditional sex role attitudes than females. This finding is consistent with past research (Elias, 2006; Kaufman, 2000; King & King 1993). Although males had more traditional sex role attitudes than females, male's sex role attitudes were not associated with concern ratings of child behaviours. Female sex role attitudes, on the other hand, were associated with concern ratings. Female participants with more traditional sex role attitudes rated all behaviours as more concerning than female participants with more egalitarian sex role attitudes. This pattern of findings was not unexpected. Elias (2006) found that while men tended to have more traditional beliefs, women were more likely to act on their traditional beliefs. Elias explained this finding using the justification-suppression model of prejudice (Crandall & Eshleman, 2003). Crandall and Eshleman propose that prejudiced attitudes will not be expressed if social norms act as a suppressor. It is possible that social norms regarding the expression of sex role attitudes vary for males and females making it more acceptable for females to express traditional gender role attitudes than for males.

### **Concern Ratings**

The most interesting finding in this study was that parents, regardless of their sex, tended to rate externalizing behaviours as more concerning than internalizing behaviours for both boys and girls. These relationships had very large effect sizes (male participants partial  $\eta^2 = .41$ ; female participants partial  $\eta^2 = .36$ ; Cohen 1988). Given that the clinical psychology students who validated the content of these items rated the internalizing and externalizing items as equally concerning, it was not expected that parents would find the externalizing behaviours to be more concerning than the internalizing behaviours. This finding has implications for the types of child behaviours that parents may be likely to seek help for. If parents do not find internalizing behaviours to be particularly concerning then they are unlikely to seek mental health services for children experiencing internalizing problems. To further explore this implication it will be helpful to discuss another area of research that examines referral biases in mental health services.

Studies that assess how likely teachers are to refer children to mental health services also examine perceptions of internalizing and externalizing behaviours in children (Phares, Ehrbar & Lum, 1996; Green, Clopton & Pope, 1996; Percy, Clopton & Pope, 1993). These studies have not consistently found that externalizing behaviours

are rated as more concerning than internalizing. Two of these studies (Green et al.; Percy et al.) had teachers rate how likely they would be to refer a child (described in a vignette) demonstrating either internalizing or externalizing behaviours for treatment. In both of these studies teachers were more likely to make mental health referrals for children who displayed externalizing behaviours than children who displayed internalizing behaviours regardless of the child's sex. Another study (Phares et al.) that asked parents and teachers to rate vignettes of children displaying internalizing and externalizing problems found that internalizing problems were rated as more problematic than externalizing. It is not surprising that these studies found inconsistent results. In each of these studies teachers or parents only rated one vignette for either internalizing or externalizing problems. Thus, there may not have been enough variability in problem behaviours to obtain consistent results. In other words, due to the narrow range of problems presented in each of these studies, the results may not be generalizable to internalizing and externalizing behaviours more generally. Another concern with the study by Phares et al. (1996) was that the internalizing and externalizing vignettes were not shown to be equally problematic before being used in the study. Certain internalizing behaviours are clearly more concerning than certain externalizing behaviours (consider a depressed child with suicidal ideation versus a child who occasionally has temper tantrums). On the other hand, some externalizing behaviours are clearly more concerning than some internalizing behaviours (consider a child who is very violent and abusive versus a child who is afraid of dogs). To be able to make inferences about parent or teacher ratings of internalizing or externalizing behaviours, the behaviours must somehow be demonstrated to be comparable. Percy et al. attempted to create comparable vignettes by using the Child Behaviour Checklist (Achenbach, 1991) and writing each vignette such that the child would be at the 85<sup>th</sup> percentile (1 standard deviation above the Child Behaviour Checklist means) for the child's sex. The study by Green et al. used the same vignettes as the Percy et al. study. The current study created comparable stimuli items by having clinical psychology graduate students, specializing in child development, rate how concerning they found each of the items. Means for internalizing and externalizing items were comparable.

In the current study I found that externalizing problems were rated as more concerning than internalizing behaviours which support the findings of Percy et al. (1993) and Green et al. (1996). Given that both the studies by Percy et al. and Green et

al. as well as the current study, ensured that internalizing and externalizing items were comparable before having parents and/or teachers rate the items, these results are unlikely to be an artifact of the chosen stimuli. In other words, it is unlikely that the chosen externalizing stimuli were (at least in clinicians' and researchers' opinions) more concerning than the internalizing stimuli used in these studies. Because the current study included a wide variety of internalizing and externalizing behaviours, the results of the current study are more generalizable than the results reported in previous research.

The finding that parents consistently rated externalizing behaviours as more concerning than internalizing behaviours may help to explain referral patterns seen in clinical settings. Studies have shown that children are more likely to receive treatment for externalizing problems than for internalizing problems (Green et al., 1996; Thompson, 2004). For example, Thompson (2004) found that, in a sample of 269 high risk 2- to 9-year-old children, only 6.7% received treatment for internalizing problems, whereas 22.3% received treatment for externalizing problems. These findings are not a result of a lower incidence of internalizing disorders. Internalizing problems are at least equally as prevalent as externalizing problems in preschoolers, and possibly more prevalent (Furniss, Beyer & Guggenmos, 2006). If both parents and teachers perceive externalizing problems as more concerning than internalizing problems, then externalizing problems would be expected to be seen more frequently in clinical settings. This is problematic because it means that many preschool children who need mental health services for internalizing problems may not be receiving treatment.

Thompson (2004) describes parents as the gatekeepers to mental health services for young children. If parents are not concerned about internalizing problems in children, then they are unlikely to seek mental health services for children suffering from internalizing problems. Untreated internalizing problems in young children can have several negative consequences. Preschool internalizing problems have been associated with language delays (Kaiser, Hancock, Cai, Foster & Hester, 2000), low self esteem (Coplan, Findlay & Nelson, 2004), and poor peer relationships (Coplan et al., 2004). Given the negative consequences of internalizing problems, it is imperative that parents recognize symptoms and seek treatment. Without treatment, internalizing problems in preschoolers have been shown to persist into mid childhood and early adolescence (Mesman & Koot, 2001; Warren, Huston, Egeland & Sroufe, 1997). Given that parents tend to view internalizing problems as significantly less concerning than externalizing

problems, parent education programs may help to ensure that children with internalizing problems receive treatment.

### **Limitations and Directions for Future Research**

The hypotheses that participants would be more concerned about sex role stereotyped incongruent behaviours than sex role stereotyped congruent behaviours were not supported. Participants did not differentially respond to girls' and boys' displays of distress. Previous studies looking at parents' responses to specific internalizing and externalizing behaviours in their own children have found that parents differentially respond to boys and girls. It is possible that the stimuli used in the current study were too abstract to assess subtle differences in the ways parents may respond differently to boys and girls. Future research examining parents' responses to their own children's internalizing and externalizing behaviours rather than a hypothetical child's behaviours may be a more sensitive test of differential socialization in this domain.

Another limitation of this study was that participants were not asked to give approval or acceptability ratings of the described child behaviours. Research examining sex discrimination in adults has shown that women engaging in behaviours that are incongruent with their stereotyped sex role tend to be rated negatively (Eagly, 2004). In the current study, participants were only asked to rate how concerning they found each of the behaviours. They were not asked to rate whether or not they approved of the behaviours. Participants may have been more disapproving of incongruent behaviours even though they did not find incongruent behaviours more concerning. In the current study only one rating scale was used to reduce participant fatigue and increase response rates. Future researchers interested in perceptions of incongruent sex role behaviours should consider including an approval rating of the behaviour.

The hypothesis that sex role attitudes would moderate differential responding to boys and girls was also not supported. This finding is particularly confusing given that the SRES was designed to assess individuals' tendencies to respond differentially to males and females. In the current study this measure was unable to predict responses to gender based stereotyped behaviours. It is possible that if there was a greater range of sex role attitudes in participants (e.g., more participants with more extreme traditional attitudes) then SRES scores may have been associated with differential responding to



boys and girls. On the other hand, it is possible that the SRES is not appropriate when studying gender based stereotypes of young children

### **Conclusion**

The current study examined parents' level of concern regarding a range of internalizing and externalizing behaviours in preschool children. It was predicted that participants would rate stereotypical gender incongruent behaviours as more concerning than gender congruent behaviours. These hypotheses were not supported. Parents rated externalizing behaviours as significantly more concerning than internalizing behaviours regardless of the sex of the child. This finding is particularly important because it suggests that parents may be less likely to seek mental health services for children experiencing internalizing problems than children experiencing externalizing problems. Indeed, research has shown that children are less likely to receive treatment for internalizing problems than for externalizing problems (Green et al., 1996; Thompson, 2004). By providing parents with education programs regarding the symptoms and consequences of internalizing disorders, we can increase the likelihood that children suffering from internalizing problems will receive treatment.

## REFERENCES

- Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist: 4-18 and 1991 profile*. Burlington: University of Vermont Department of Psychiatry.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> ed.). Washington, DC: Author.
- British Columbia Ministry of Health, Vital Statistics Agency (n.d.). *Most popular baby names in British Columbia*. Retrieved May 16, 2007, from <http://www.vs.gov.bc.ca/babynames>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2<sup>nd</sup> ed.). New York: McGraw-Hill.
- Condry, J., & Condry, S. (1976). Sex differences: A study of the eye of the beholder. *Child Development*, 47(3), 812-819.
- Condry, J., & Ross, D. F. (1985). Sex and aggression: The influence of gender label on the perception of aggression in children. *Child Development*, 56(1), 225-233.
- Coplan, R. J., Findlay, L. C., & Nelson, L. J. (2004). Characteristics of preschoolers with lower perceived competence. *Journal of Abnormal Child Psychology*, 32(4), 399-408.
- Crandall, C. S., & Eshleman, A. (2003). A justification-suppression of the expression and experience of prejudice. *Psychological Bulletin*, 129(3), 414-446.
- Cuffe, S. P., Moore, C. G., & McKeown, R. E. (2005). Prevalence and correlates of ADHD symptoms in the national health interview survey. *Journal of Attention Disorders*, 9(2), 392-401.
- Dekovic, M., Buist, K. L., & Reitz, E. (2004). Stability and changes in problem behavior during adolescence: Latent growth analysis. *Journal of Youth and Adolescence*, 33(1), 1-12.
- Eagly, A. H. (2004). Prejudice: Toward a more inclusive understand. In A. H. Eagly, R. M. Baron & V. L. Hamilton (Eds.), *The social psychology of group identity and social conflict: Theory, application, and practice* (pp. 45-65). Washington, DC: APA.
- Elias, R. E. (2006). *Explaining discrimination against men who care for their families: A test of the sex-role violation theory of discrimination*. Unpublished master's thesis, University of Guelph, ON.

- Fagot, B. I., Hagan, R., Leinbach, M. D., & Kronsberg, S. (1985). Differential reactions to assertive and communicative acts of toddler boys and girls. *Child Development*, 56(6), 1499-1505.
- Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23,000 prisoners: A systematic review of 62 surveys. *Lancet*, 359(9306), 545-550.
- Fivush, R. (1991). Gender and emotion in mother-child conversations about the past. *Journal of Narrative & Life History*, 1(4), 325-341.
- Furniss, T., Beyer, T., & Guggenmos, J. (2006). Prevalence of behavioural and emotional problems among six-years-old preschool children: Baseline results of a prospective longitudinal study. *Social Psychiatry and Psychiatric Epidemiology*, 41(5), 394-399.
- Giles, J. W., & Heyman, G. D. (2005). Preschoolers use trait-relevant information to evaluate the appropriateness of an aggressive response. *Aggressive Behavior*, 31(5), 498-509.
- Grant, B. F., Dawson, D. A., Stinson, F. S., Chou, S. P., Dufour, M. C., & Pickering, R. P. (2004). The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United states, 1991-1992 and 2001-2002. *Drug and alcohol dependence*, 74(3), 223-234.
- Green, M. T., Clopton, J. R., & Pope, A. W. (1996). Understanding gender differences in referral of children to mental health services. *Journal of Emotional & Behavioral Disorders*, 4(3), 182-190.
- Hankin, B. L., Mermelstein, R., & Roesch, L. (2007). Sex differences in adolescent depression: Stress exposure and reactivity models. *Child development*, 78(1), 279-295.
- Hartung, C. M., & Widiger, T. A. (1998). Gender differences in the diagnosis of mental disorders: Conclusions and controversies of the DSM-IV. *Psychological Bulletin*, 123(3), 260-278.
- Kaiser, A. P., Hancock, T. B., Cai, X., Foster, E. M., & Hester, P. P. (2000). Parent-reported behavioral problems and language delays in boys and girls enrolled in head start classrooms. *Behavioral Disorders*, 26(1), 26-41.
- Kasof, J. (1993). Sex bias in the naming of stimulus persons. *Psychological Bulletin*, 113, 140-163.
- Kaufman, G. (2000). Do gender role attitudes matter? Family formation and dissolution among traditional and egalitarian men and women. *Journal of Family Issues*, 21(1), 128-144.

- Kessler, R. C., McGonagle, K. A., Zhao, S., & Nelson, C. B. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the national comorbidity study. *Archives of General Psychiatry*, 51(1), 8-19.
- King, L. A., & King, D. W. (1993). *Sex-Role Egalitarianism Scale Manual*. Port Huron, MI: Sigma Assessment Systems, Inc.
- King, L. A., & King, D. W. (1997). Sex-Role Egalitarianism Scale: Development, psychometric properties, and recommendations for future research. *Psychology of Women Quarterly*, 21(1), 71-87.
- Langlois, J. H., & Downs, A. C. (1980). Mothers, fathers, and peers as socialization agents of sex-typed play behaviors in young children. *Child Development*, 51(4), 1237-1247.
- Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. *Psychological Bulletin*, 109(2), 267-296.
- Maccoby, E. E., & Jacklin, C. N. (1974). *The Psychology of Sex Differences*. Stanford University Press.
- Marshall, K. (1998). Stay-at-home dads. *Perspectives on Labour and Income*. *Statistics Canada*, Catalogue no. 75-001-XPE, Vol. 10, no. 1). 26-30. Ottawa: Canadian Centre for Justice Statistics.
- Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder and oppositional defiant disorder in a national sample: Developmental epidemiology. *Journal of Child Psychology and Psychiatry*, 45(3), 609-621.
- McHale, S. M., Crouter, A. C., & Tucker, C. J. (1999). Family context and gender role socialization in middle childhood: Comparing girls to boys and sisters to brothers. *Child Development*, 70(4), 990-1004.
- McHale, S. M., Crouter, A. C., & Whiteman, S. D. (2003). The family contexts of gender development in childhood and adolescence. *Social Development*, 12(1), 125-148.
- Mesman, J., & Koot, H. M. (2001). Early preschool predictors of preadolescent internalizing and externalizing DSM-IV diagnoses. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(9), 1029-1036.
- Mills, R. S., & Rubin, K. H. (1992). A longitudinal study of maternal beliefs about children's social behaviors. *Merrill-Palmer Quarterly*, 38(4), 494-512.
- Oldehinkel, A. J., Hartman, C. A., De Winter, A. F., Veenstra, R., & Ormel, J. (2004). Temperament profiles associated with internalizing and externalizing problems in preadolescence. *Development & Psychopathology*, 16(2), 421-440.

- Pearcy, M. T., Clopton, J. R., & Pope, A. W. (1993). Influences on teacher referral of children to mental health services: Gender, severity, and internalizing versus externalizing problems. *Journal of Emotional & Behavioral Disorders, 1*(3), 165-169.
- Peterson, C. (2004). Mothers, fathers, and gender: Parental narratives about children. *Narrative Inquiry, 14*(2), 323-346.
- Phares, V., Ehrbar, L. A., & Lum, J. J. (1996). Parental perceptions of the development and treatment of children's and adolescents' emotional/behavioral problems. *Child & Family Behavior Therapy, 18*(4), 19-36.
- Savioe, J. (1999). Youth violent crime. *Juristat*. Statistics Canada, Catalogue no. 85-002-XPE, Vol. 19, no. 13). Ottawa: Canadian Centre for Justice Statistics.
- Scaramella, L. V., Conger, R. D., & Simons, R. L. (1999). Parental protective influences and gender-specific increases in adolescent internalizing and externalizing problems. *Journal of Research on Adolescence, 9*(2), 111-141.
- Sterba, S. K., Prinstein, M. J., & Cox, M. J. (2007). Trajectories of internalizing problems across childhood: Heterogeneity, external validity, and gender differences. *Development and Psychopathology, 19*(2), 345-366.
- Tiedemann, J. (2000). Parents' gender stereotypes and teachers' beliefs as predictors of children's concept of their mathematical ability in elementary school. *Journal of Educational Psychology, 92*(1), 144-151.
- Warren, S. L., Huston, L., Egeland, B., & Sroufe, L. A. (1997). Child and adolescent anxiety disorders and early attachment. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(5), 637-644.
- Wicks-Nelson, R., & Israel, A. C. (2000). *Behaviour Disorders of Childhood* (4th ed.). Upper Saddle River, New Jersey: Library of Congress Cataloging-in-Publication Data.
- Zahn-Waxler, C. (1993). Warriors and worriers: Gender and psychopathology. *Development and Psychopathology, 5*(1), 79-89.
- Zahn-Waxler, C., Klimes-Dougan, B., & Slattery, M. J. (2000). Internalizing problems of childhood and adolescence: Prospects, pitfalls, and progress in understanding the development of anxiety and depression. *Development & Psychopathology, 12*(3), 443-466.

## **APPENDICES**

## APPENDIX A

### Demographic Information Form

#### Demographic Information

1. Please complete the following table for each member of your household.

Person's relation to you (e.g. spouse, child, common-law)	Gender (M/F)	Date of Birth (MM/DD/YYYY)	Occupation (if applicable)	Education (e.g. highest grade, some college, university, graduate degree)
<b>a. Myself</b>				
b.				
c.				
d.				
e.				
f.				
g.				

Please complete the following information my specifying where indicated or circling the appropriate choice.

- 2 a. Were you born in Canada?    YES    NO                      4. Is English your first language?    YES    NO
- b. If no, what year did you come to Canada? \_\_\_\_\_
- c. If no, what country did you come from? \_\_\_\_\_                      5. What language is spoken in your home? \_\_\_\_\_
- 3 a. Were both of your parents born in Canada?    YES    NO                      6. What is your ethnic background? \_\_\_\_\_
- b. If no, where were they born? \_\_\_\_\_

Would you like to be contacted about other studies in the Children's Social Emotional Development Lab at SFU?    YES    NO

## APPENDIX B

### Concern about Preschoolers' Behaviours

#### Parents' Concern about Preschoolers' Behaviours

Parents sometimes get concerned about the way their children behave. Imagine that Kiara is your daughter. Kiara is a four year old girl. We are interested in how concerned you would become if Kiara behaved in each of the ways listed below. Please indicate your level of concern using the scale below by circling the appropriate number for each item.

	Not at all Concerned		Moderately Concerned			Extremely Concerned	
1. Kiara seems to have less energy than other children and sometimes she is too tired to do anything.	1	2	3	4	5	6	7
2. Kiara often argues when she is asked to do something.	1	2	3	4	5	6	7
3. Kiara complains of having a stomachache before her preschool concert.	1	2	3	4	5	6	7
4. Kiara is very shy and prefers to be alone.	1	2	3	4	5	6	7
5. Kiara throws tantrums and screams and yells when asked to do something.	1	2	3	4	5	6	7
6. Kiara often tells other children that she is the boss and that they have to listen to her.	1	2	3	4	5	6	7
7. When Kiara gets angry she stomps her feet loudly.	1	2	3	4	5	6	7
8. When Kiara is angry she is rough with her toys and they sometimes break.	1	2	3	4	5	6	7
	Not at all Concerned		Moderately Concerned			Extremely Concerned	
9. Often when Kiara is around children or adults she doesn't know she won't talk.	1	2	3	4	5	6	7
10. Kiara often feels guilty, even when she hasn't done anything wrong.	1	2	3	4	5	6	7
11. Kiara often cries when she is overtired.	1	2	3	4	5	6	7
12. Kiara is easily annoyed by others which often leads to tantrums.	1	2	3	4	5	6	7
13. Kiara often hides behind her mom or dad when meeting new people.	1	2	3	4	5	6	7
14. After a busy day Kiara will often get a headache.	1	2	3	4	5	6	7
15. Sometimes when Kiara doesn't want to eat she will forcefully push her plate away.	1	2	3	4	5	6	7
16. When Kiara is angry with someone she may cruelly hit or kick them.	1	2	3	4	5	6	7
17. Kiara is so afraid to be left at preschool that she often has to be brought home.	1	2	3	4	5	6	7
18. When Kiara is asked to do something she doesn't want to she sometimes pretends she doesn't hear.	1	2	3	4	5	6	7



### Parents' Concern about Preschooler's Behaviours

	Not at all Concerned		Moderately Concerned			Extremely Concerned	
19. When Kiara sees a big dog she will freeze until an adult says it is okay.	1	2	3	4	5	6	7
20. When Kiara is upset she purposely breaks her toys.	1	2	3	4	5	6	7
21. Kiara often has difficulty playing quietly by herself and wants to be entertained by others.	1	2	3	4	5	6	7
22. Kiara pouts when she doesn't get her own way.	1	2	3	4	5	6	7
23. Kiara slams the door to her room when she doesn't want to go to bed and may get up several times.	1	2	3	4	5	6	7
24. Kiara often runs around or climbs excessively when other children are sitting still.	1	2	3	4	5	6	7
25. When Kiara sees a bug she sometimes screams.	1	2	3	4	5	6	7
26. When Kiara doesn't want to put her toys away she throws them in her toy box.	1	2	3	4	5	6	7
27. Kiara is often very sad and cries.	1	2	3	4	5	6	7
28. Sometimes Kiara thinks that other children won't play with her.	1	2	3	4	5	6	7
29. When Kiara gets hurt she often cries.	1	2	3	4	5	6	7
30. Kiara sometimes teases other children at her preschool.	1	2	3	4	5	6	7
	Not at all Concerned		Moderately Concerned			Extremely Concerned	
31. Kiara sometimes takes toys from other people's homes even though she knows it's wrong.	1	2	3	4	5	6	7
32. Kiara has been caught lying several times.	1	2	3	4	5	6	7
33. Kiara sometimes withdraws when she is in an unknown situation.	1	2	3	4	5	6	7
34. When Kiara has difficulty doing tasks she sometimes screams and cries.	1	2	3	4	5	6	7
35. Sometimes Kiara is shy around new people.	1	2	3	4	5	6	7
36. Kiara is often mean to animals and has been caught purposely hurting her family's cat.	1	2	3	4	5	6	7
37. Kiara often complains of aches and pains in her legs.	1	2	3	4	5	6	7
38. Kiara doesn't seem to know the difference between right and wrong.	1	2	3	4	5	6	7
39. Kiara becomes very afraid when her mom or dad are not within her sight.	1	2	3	4	5	6	7
40. Sometimes Kiara talks about wanting to die.	1	2	3	4	5	6	7

## APPENDIX C

### Study Information Document

#### Form 5: STUDY INFORMATION DOCUMENT



SIMON FRASER  
UNIVERSITY

#### Adults' Perceptions of Internalizing and Externalizing Behaviours in Preschoolers

##### Who are the participants in this study?

Mothers and fathers of 3 to 5 year old children may participate in this study.

##### What will the participants be required to do?

Parents will be asked to complete questionnaires in which they will rate how concerning they find various behaviour problems in childhood. Parents will also be asked to complete a measure that asks about their beliefs about their roles in their family, home and society. Finally, parents will be asked to provide demographic information. These measures will take 10 to 20 minutes to complete. Following completion of the study participants will receive a five dollar gift card for a specialty coffee as a thank-you for their participation.

##### Overall Goals of Study:

1. To better understand how parents perceive problematic behaviours in preschoolers.
2. To understand how parents' beliefs about their roles in the family affect their perception of problematic behaviours in preschoolers.

##### Risks to the participant, third parties or society:

This study poses no known risks to the participant, third parties or to society.

##### Benefits of study to the development of new knowledge:

This study contributes to knowledge in the field of developmental psychology. More specifically, this research looks at how parental beliefs influence how parents interpret child behaviour. This study will provide valuable information about family factors that may influence the social and emotional development of boys and girls.

##### How confidentiality and anonymity will be assured if applicable:

All study materials will be maintained in a locked cabinet in a secure research area. No identifying information about participants will appear on the questionnaire or data files. Further, group rather than individual results from this study will be reported. Only researchers directly involved with this project will have access to the data.

##### Approvals that may be required from agencies, communities or employers:

No additional approvals are required for participants who complete the study in the Young Research Lab, at SFU. Approval will be sought from community settings to allow some participants to complete the study at other settings.

##### Persons and contact information that participants can contact to discuss concerns:

Ruth Coupland or Dr. Arlene Young, Department of Psychology, SFU, 604 268 6825  
Also, please see our website at <http://www.sfu.ca/csedl/>.

## APPENDIX D

### Consent Form

#### Form 2: INFORMED CONSENT FORM



SIMON FRASER  
UNIVERSITY

#### CONSENT TO PARTICIPATE IN RESEARCH

##### *Study – Parents' Perceptions of Problematic Behaviours in Preschoolers*

The University and those conducting this research study subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of participants. This research is being conducted under permission of the Simon Fraser Research Ethics Board. The chief concern of the Board is for the health, safety and psychological well-being of research participants.

Should you wish to obtain information about your rights as a participant in research, or about the responsibilities of researchers please contact the Director, Office of Research Ethics by email at [hweinber@sfu.ca](mailto:hweinber@sfu.ca) or phone at 604-268-6593.

Your signature on this form will signify that you have received a document which describes the procedures and benefits of this research study, that you have received an adequate opportunity to consider the information in the documents describing the study, and that you voluntarily agree to participate in the study.

Any information that is obtained during this study will be kept confidential to the full extent permitted by the law and by the Canadian Psychological Association standards of ethical practice. Knowledge of your identity is not required. You will not be required to write your name or any other identifying information on research materials. Materials will be maintained in a secure location.

This study does not pose any known risks to participants. Participants will be asked to rate how concerning they find various problematic behaviours of boys and girls. Participants will also be asked to complete a questionnaire regarding their beliefs about their roles in their home, family and in society. Finally, parents will be asked to provide demographic information. These measures will take 10 to 20 minutes to complete.

This study will help us to understand how parents perceive problematic behaviours in preschoolers. This study will provide valuable information about family factors that may influence the social and emotional development of boys and girls.

I understand that I may register any complaint with the Chair of the Department of Psychology as shown below.

Dr. Daniel Weeks,  
Department of Psychology  
8888 University Way,  
Simon Fraser University,  
Burnaby, British Columbia, V5A 1S6, Canada

I may obtain copies of the results of this study, upon its completion by contacting:  
Ruth Coupland, Department of Psychology, Simon Fraser University, 8888 University  
Drive, Burnaby, B.C. V5A 1S6, 604-268-6825.

I have been informed that the research will be confidential.

I understand that I may withdraw my participation at any time. I also understand  
contributions of my participation in this study and agree to participate:

Participant Last Name:	Participant First Name:
------------------------	-------------------------

Participant Contact Information:

Participant Signature:	Date (MM/DD/YYYY):
------------------------	--------------------

## APPENDIX E

## Correlations between Sex Role Attitudes and Concern Ratings

All Participants	<i>n</i>	1	2	3
1. Sex Role Attitudes	265	–	-.02	-.03
2. Externalizing Behaviours	268		–	.82**
3. Internalizing Behaviours				–
Males Rating Boys		1	2	3
1. Sex Role Attitudes	65	–	.07	.10
2. Externalizing Behaviours	68		–	.80**
3. Internalizing Behaviours				–
Males Rating Girls		1	2	3
1. Sex Role Attitudes	68	–	.01	-.06
2. Externalizing Behaviours	68		–	.88**
3. Internalizing Behaviours				–
Females Rating Boys		1	2	3
1. Sex Role Attitudes	69	–	-.02	-.10
2. Externalizing Behaviours	69		–	.80**
3. Internalizing Behaviours				–
Females Rating Girls		1	2	3
1. Sex Role Attitudes	63	–	-.18	-.13
2. Externalizing Behaviours	63		–	.82**
3. Internalizing Behaviours				–