Relationship between parents' beliefs and their responses to children's risk-taking behaviour during outdoor play

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Relationship between parents’ beliefs and their responses to children’s risk-taking behaviour during outdoor play

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Abstract
Learning how to respond appropriately in risk situations comes not only from the child’s direct experiences but also through the guidance of those around them. The role of parent practices in guiding children’s decision-making in risky situations has mainly been investigated in experimental contexts. The present study examined children’s risk-taking behaviour and parent responses in everyday outdoor play settings. Parents’ own risk-taking beliefs and behaviours were assessed using the Attitudes Towards Risk Questionnaire (ATR). Interviews explored parents’ attitudes towards children’s risk-taking and parents (11 mothers, one father) were observed as they supervised their four- to five-year-old children on playground equipment at a park. Parents’ ATR scores were predictive of children’s risk-taking behaviour. Parents mainly supervised their child’s play and provided encouragement and support to foster children’s engagement in challenging use of the equipment. Parents rarely intervened to prevent children’s risky play but provided advice on how to complete the activity safely. Parents emphasized that their responses to children’s risk-taking are context dependent.

Keywords
Australia, development, outdoor play, parent beliefs, risk-taking, safety, socialization

As children gain independence with increasing age they gradually take on greater responsibility for making autonomous decisions in a variety of situations. Recognizing and responding appropriately to risk situations is an important aspect of this process as children learn to function safely in a range of environments. A number of factors associated with individual differences in children’s perception and appraisal of risk have been identified. Based on a critical review of children’s risk-taking research, Morrongiello and Lasenby-Lessard (2007) proposed a model of determinants that potentially influence children’s decision-making in risk situations. Variables identified included: individual factors such as temperament, age, gender, and experience with an activity; parent/family factors including parent socialization and teaching practices, parent modelling, parenting style, and sibling effects; social situational factors such as observational and oral/persuasive influences; and, macro-level factors such as neighbourhood, economic and cultural influences.

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This present study aims to build upon some of these previous studies by undertaking a closer examination of parent factors that may contribute to variations in the strategies adopted by parents in guiding their children in risk situations. While a number of the studies reviewed by Morrongiello and Lasenby-Lessard (2007) examined parent socialization practices, the relationship between parent beliefs about risk-taking and their response to the risk-taking behaviour of their child has not previously been studied.

**Parent socialization practices and children’s risk-taking**

Learning about risk and how to respond appropriately in risk situations comes not only from the child’s experiences but also through the guidance of those around them. Parents play a vital role in this process and are considered to be the driving force behind their children’s socialization in the early childhood years (Backett-Milburn and Harden, 2004; Taylor et al., 2004). To date research examining parent factors has mainly focused on parent socialization practices on the grounds that this might help to explain the consistent findings that males engage in more risk-taking and appraise risk situations as being less serious than females do (Byrnes et al., 1999; Ginsberg and Miller, 1982; Hillier and Morrongiello, 1998). The parent socialization research has identified differential practices in the way parents respond to the behaviour of sons as opposed to daughters. This disparity in the treatment of sons and daughters appears to exist in relation to both children’s freedom to engage in independent activities (Soori and Bhopal, 2002) and parent interactions while supervising their children (Morrongiello and Dawber, 1999, 2000; Kindleberger Hagan and Kuebli, 2007).

In a study examining parental permission for children’s independent outdoor activities, Soori and Bhopal (2002) found that parents were more likely to allow boys to engage in independent outdoor activities, which may expose them to greater risk of injury. Through a series of studies of both preschool- and school-aged children, Morrongiello and others (see for example, Morrongiello and Hogg, 2004) have also identified that parents respond differentially to children’s risk-taking behaviour. In general these studies reveal that parents provide more directives and expect greater independence from sons compared to daughters who receive more cautions about safety and spontaneous assistance. These differences existed despite there being no differences between boys’ and girls’ abilities to actually perform the task in the free play situation (Morrongiello and Dawber, 1999, 2000). Similarly, Kindleberger Hagan and Kuebli (2007) found that fathers of preschool-aged daughters monitored their child’s behaviour more closely than fathers of sons. On the other hand, unlike the findings from the studies by Morrongiello and colleagues (Morrongiello and Dawber, 1999, 2000; Morrongiello and Hogg, 2004) there were no significant differences in the way mothers of sons as opposed to mothers of daughters monitored their children’s participation in the activity.

**Relationship between parent beliefs and child experiences and behaviours**

While the studies reviewed in the previous section have identified differences in the way parents respond to the behaviour of sons as compared to daughters, less is known about why these differences exist or what influences parent responses to the risk-taking behaviour of their children. A number of studies have examined the relationship between parental beliefs and their interactions with their children and subsequent impacts on child outcomes. Studies of parenting behaviours suggest that the experiences parents provide and their behaviour towards their child are influenced by parents’ knowledge of development and their interpretation of their child’s development along with beliefs about the relationship between parents’ own behaviour and their child’s development.
(Stevens et al., 1993). Parental beliefs encompass parents’ thoughts about their child, childrearing and themselves as parents, and act as a guide to their response patterns in different situations (Coplan et al., 2002).

Parental beliefs and socialization practices not only impact on children’s developmental outcomes but also expectations for behaviour and participation in particular activities. Previous studies have found that parent beliefs play a vital role in children’s engagement in physical activity (Sallis et al., 2000). In particular, parental concerns for their children’s safety influence their decisions to discourage or even prevent their children from participation in particular sports or physical activities because of injury-risk (Boufous et al., 2004). Similarly, parental beliefs about the safety of their neighbourhood have been found to impact on children’s independent mobility and opportunities for outdoor physical activities (Soori and Bhopal, 2002; Weir et al., 2006). While the findings from these studies reveal that parent beliefs may result in limitations on children’s experiences, parental beliefs can also have positive outcomes for children. Parental beliefs about the suitability of play equipment in parks potentially influence children’s access to such experiences. Veitch et al. (2006) found that parents were prepared to travel some distance in their quest to find parks that would engage their children and provide adequate stimulation and challenge.

**Parent beliefs and children’s risk-taking behaviour**

Based on their study of parents and children’s identification and understanding of risk in their everyday lives, Kelley and colleagues (1998: 18) found that parents believed they had a ‘socially assigned’ responsibility to protect their children from risks on the one hand but to also encourage their children to take appropriate risks that supported skill development. The beliefs of these parents reflect the perspective that risk does not necessarily equate to negative outcomes. Rather a willingness to take risks is a necessary part of human learning. In line with this, current risk discourses have begun to view the risks that children encounter as situations in which the outcome may be uncertain (Little, 2006) and play offers children opportunities to explore this uncertainty (Lester and Russell, 2008). Parents then have a vital role in supporting their children in making appropriate decisions in these risk situations.

Various studies have shown that parents are aware of the need to teach children how to avoid risky situations and from an early age parents manage injury-risk situations by using direct teaching strategies to socialize children about safety issues and setting expectations for appropriate behaviour (Morrongiello et al., 2006, 2008). Nonetheless, little is known about how parents help children to distinguish between risks that are appropriate and those that are not.

Research by Backett-Milburn and Harden (2004) and Kelley et al. (1998) would suggest that parental beliefs can significantly influence the way in which parents respond to the risk-taking behaviour of their children. Lewis et al. (2004) examined parent beliefs about the developmental benefits of childhood injuries. The majority of parents in their study believed that children learn from their injury experiences and this in turn had implications for parent responses to the injury-risk behaviours of their children. Similarly, a study by Backett-Milburn and Harden (2004) found that parents varied in their risk assessment and hence their decision-making in risk situations. This in turn influenced the degree to which they allowed children to exercise agency or conversely restricted their children’s freedom. Backett-Milburn and Harden point to individual differences in parental beliefs about risk and their own risk-taking behaviours as possible explanations for these differences.

Franken et al. (1992) suggested that a person’s perception of risk is altered by their prior engagement in risk situations; hence those who engage in risky situations without adverse outcomes are
likely to perceive such situations as less risky in the future. It is conceivable then that parents who perceive less potential threat from risk behaviour may be more tolerant of their children’s risk-taking. This is important as parents of young children have the responsibility for organizing the environment and hence have a significant role in either promoting or hindering children’s exploratory behaviour and engagement with risk situations (Chak, 2007).

While the studies reviewed above have mainly involved school-aged children, the preschool years are a period of rapid development during which children learn many of the skills needed to support their increasing autonomy and independence. It is important therefore to gain a greater understanding of how parents support young children’s awareness of risk and encourage their children to challenge themselves and deal with uncertainty while avoiding excessive risk-taking that may lead to injury.

In addition, many of the studies of parent socialization of children’s risk-taking behaviours have been conducted in contrived settings. As Kindleberger Hagan and Kuebli (2007) point out, parents’ reactions to their children’s behaviour may differ in situations where the child actually engages in the activity as opposed to situations in which the child is being taught how to do an activity that may not become part of their behavioural repertoire. Kindleberger Hagan and Kuebli sought to address this limitation in their research by observing parents and children at their child’s preschool. Yet this too has its limitations as it still lacked realism as parents would not normally be present or responsible for their child’s supervision at preschool. Ecological validity of the present study was enhanced by an everyday setting in which children’s play occurs. This improved the likelihood of obtaining typical parental responses to children’s play.

To complement previous studies examining parent factors associated with children’s risk-taking as identified by Morrongiello and Lasenby-Lessard (2007), the present study aimed to investigate the relationship between parents’ own risk-taking behaviours and beliefs about safety and risk-taking, and their responses to their children’s risk-taking behaviour during outdoor physical play. Neighbourhood playgrounds located in public parks represent a primary context for children’s play. Playgrounds such as these are designed for children to set themselves challenges, take risks and experience fun and adventure. Hence they provide a relevant context for examining parent interactions with their children that support children’s growing awareness of risk and provide guidance for their eventual independent appraisal of risk situations. Of particular interest for the present study was whether parents recognize the benefits of some physically risky activities, and how they balance this with concerns for their child’s safety. The research focused on the strategies parents use to guide their children’s behavior in risky play situations and the relationship between adults’ beliefs about risk and their responses to their children’s risk-taking behaviour.

**Method**

**Participants**

As part of a larger study of outdoor play and risk-taking, 38 families of children aged four–five years ($M = 55.7$ months) were recruited from five Early Childhood (EC) centres located in different regions of Sydney. Centres were Preschools and Long Day Care services managed by a large not-for-profit organization. Families were mainly from Anglo-Australian backgrounds (78%) with mothers having educational levels as follows: university degree (59%); other post-secondary qualification (19%); secondary school (22%). Of these 38 families, 26 mothers of 19 boys and seven girls agreed to be interviewed. For phase two of the study, 11 of these mothers and one father and their children, eight boys and four girls; ranging in age from 48 to 64 months ($M = 56.4$, SD = 5.4),
also agreed to be observed during play at a local park playground. Eighty-three percent of these children were first-born and most (83%) had one sibling.

**Description of the playgrounds**

Suitable playgrounds near each EC centre were identified in consultation with the parents. All children attending the same EC centre were observed individually at the same park playground. The playgrounds were similar and typical of those provided by local governments throughout the Sydney metropolitan area. The equipment at the parks consisted of composite play structures combining a number of different activities including, but not limited to, a variety of ladders of varying heights and difficulty, slides, monkey bars, sliding poles, horizontal track rides, and climbing ropes. The park playgrounds did not offer other opportunities for unstructured play with loose materials such as sand, water or natural materials within the environment.

**Measures**

**Parent measures.** Described below are the formal questionnaire and semi-structured interview used to assess parental beliefs about risk-taking and the observations of their interactions with children during play.

The *Attitudes Towards Risks Questionnaire* is a self-report measure pertaining to risk-taking beliefs and behaviours and includes issues such as social approval/disapproval, the enjoyment that comes from taking risks, and disregard for danger. From the 34 items initially developed covering various risk situations and behaviours, Franken et al. (1992) further separated items into physical risk and psychological risk factors to produce a 20-item scale (10 items for each factor). Parents were asked to indicate the extent to which the statement was representative of their behaviour using a five-point scale ranging from ‘Like me’ (score = 4) to ‘not like me’ (score = 0). A total score was derived from the sum of scores on each sub-scale (physical and psychological) with the minimum being 0 and the maximum being 80 (0–40 for each sub-scale). Higher scores denote greater engagement in risk behaviours.

Parents’ beliefs about factors influencing risky play were explored through semi-structured interviews which asked parents about their beliefs concerning the benefits of children’s play, personal attitudes to risk-taking, safety and injury as well as their views on societal attitudes towards these issues, and their views on environmental factors that may influence children’s opportunities for risky play. Interviews were coded to identify the most frequent responses to individual questions which were then analysed using descriptive statistics. A second person independently coded 50 percent of the interviews, resulting in a reliability coefficient (Kappa) of 0.84.

For Parent responses to children’s risk-taking, parent interactions with the children during play were coded in terms of both physical and verbal behaviour. Based on personal observations of typical parent interactions with children during outdoor play, categories of behaviour were adapted from Morrongiello and Dawber (2000) to include physical behaviours in addition to the verbal behaviours used by these authors. Interactions fell into the following broad categories: No active interaction (supervision); positive interaction (offering support, modelling, praise or encouragement, instructions, explanations), and negative interaction/intervention (providing cautions, redirecting or stopping the behaviour).

Parent interactions were coded at 20-second intervals. As some of the interactions were likely to be of short duration and frequency, all incidents of the target behaviours were coded. Thus in each 20-second period more than one behaviour may have been coded, for example, physical
support in conjunction with verbal encouragement. Scores derived for target behaviours represent a percentage of the total duration of the period of observation. Analysis of inter-rater reliability for 50 percent of the observations obtained Kappa coefficients ranging from 0.78 to 1.0 (M = 0.89).

Child measures. Children’s experiences of risky play were examined using naturalistic observations and coded according to the following categories developed specifically for this study. Categories were developed based on the literature and further refined in response to the behaviour displayed by the children.

The Categories of Risk-taking Behaviour (see Table 1) are accompanied by ‘descriptions by consequence’ or ‘a specific set of behaviours toward a certain outcome or consequence’ (Pellegrini, 1996: 65). The categories acknowledge that risk may have positive or negative outcomes (Jambor, 1986; Little and Wyver, 2008; Tovey, 2007), risky play involves testing boundaries and exploring risk (Ball, 2002), and attempting something beyond their current skill level (Stephenson, 2003). In relation to negative consequences, the categories also acknowledge that these may result from either deliberate violations of safe practice or from errors in judgment (Rowe and Maughan, 2009). From this perspective the degree of risk varies depending on the task itself, environmental factors, the child’s motivation and current capabilities in relation to the task, and the child’s ability to accurately appraise the risk factors. Hence children potentially engage in various levels of risk-taking ranging from very low or no obvious risk through to high risk. It may also involve behaviours where children engage in trial and error as they attempt to assess the situation and how they will approach the task. Finally, the descriptions of the behaviours are deliberately broad in recognition that risk is subjective. That is, what constitutes a moderate risk for one child may be low risk behaviour for another child when individual differences in ability and experience are considered. Hence, it was deemed that further examples of specific behaviours would result in the categories being too prescriptive.

For Children’s verbalizations, all dialogue from the video recordings was transcribed verbatim. Children’s utterances during play were coded into six categories adapted from those previously developed by Kindleberger Hagan and Kuebli (2007): a) asking parent for advice on how to complete the task; b) self-assertion of competence; c) expressions of fear or self-doubt; d) requests for assistance; e) expression of intention to try an activity; and f) other non-related comments/questions.

The children’s play was coded at 20-second intervals for risk-taking behaviour and verbalizations. All verbal utterances were coded, however for the risk-taking behaviour only the dominant behaviour exhibited during each period was coded; hence only one type of risk behaviour was coded as present during each 20-second period. Fifty percent of the observations were coded by a second observer and inter-rater reliability was calculated using Kappa’s coefficient with values ranging from 0.87 to 1.0 being obtained.

Procedure

The study consisted of two phases; the interview phase and the observation phase. For parents who consented to an interview, a mutually convenient time and location was arranged. The majority of interviews were conducted at the parent’s home (n = 16), while the remainder were conducted at their child’s early childhood centre (n = 9) or workplace (n = 1) with sessions being approximately 45 minutes in duration. At the completion of the interview, all parents provided demographic information about their child and family, and completed the Attitudes Towards Risk Questionnaire. Parents were also asked if they would like to remain in the study for the observation phase.
For the observation phase, children ($n = 12$), whose parents had consented to their continued participation in the study, were observed individually at a local park playground as they engaged in free play on the composite playground equipment. Parent’s interactions with their child during this time were also observed. Play sessions lasted approximately 20 minutes and were video recorded for later analysis of child and adult behaviour and dialogue.

**Results**

**Parent measures**

**Parents’ beliefs about risk.** Parents’ personal risk-taking beliefs and behaviour were examined using the Attitudes Towards Risk (ATR) Questionnaire. Total scores ranged from 0 to 47 with a mean of 15.6 ($SD = 11.1$). Scores for the physical risk items ranged from 0 to 23 with a mean of 10.8 ($SD = 6.3$), while scores on the psychological risk items ranged from 0 to 24 with a mean of 4.7
Analysis of the relationship between parents’ physical and psychological risk scores as assessed by the ATR using Spearman’s rank order correlation revealed there was a strong positive correlation between parents’ physical risk scores and their psychological risk scores ($r = 0.57$, $p = .001$, two-tailed).

Parents’ beliefs about their children’s risk-taking behaviour were explored through semi-structured interviews. Overall, the majority of parents ($n = 21$, 87%) highlighted the positive outcomes and learning potential of opportunities for risk-taking. Of these, eight (33%) parents acknowledged that risk-taking could also have negative outcomes but only five parents spoke about risk-taking solely in terms of negative outcomes.

All the parents believed that it was necessary for children to take physical risks when learning new skills to promote skill development ($n = 19$; 73%) and build confidence ($n = 15$; 57%). By doing so many parents believed that children also learnt how to avoid injury ($n = 10$; 38%). All the parents also accepted that minor injuries were an inevitable part of this learning process and that injury-risk behaviour was often associated with the child’s lack of experience/awareness of risks involved ($n = 17$; 65%), impulsivity ($n = 8$; 30%), personality ($n = 8$; 30%), or from copying the behaviour of older children ($n = 3$; 11%).

Fifteen parents (55%) described their child as a risk-taker in terms of accepting challenges and being willing to try new activities that may be beyond their current capability and only four (14%) parents felt that their child engaged in inappropriate risk-taking behaviour. In discussing their responses to their child’s risk-taking, 12 (46%) of the parents indicated they provided physical support and/or verbal encouragement in response to their child’s positive risk-taking behaviour. Another 12 (46%) parents indicated they either provided support and/or encouragement for positive risk-taking but intervened in situations involving inappropriate risk-taking. Only two (8%) parents responded to this issue solely in terms of negative risk-taking indicating they intervened in reaction to their child’s inappropriate risk-taking behaviour.

**Observations of children’s play.** NVivo software (QSR International, 2008) was used to code the play observations for child risk behaviours and verbalizations and parent interactions. All dialogue during the play episodes was transcribed verbatim. Analysis of the play episodes at the park playgrounds revealed that the children mainly engaged in lower level risk behaviours with all the children engaging in no or very low risk behaviours and positive low risk behaviours for 39 percent to 45 percent, respectively, of their total time playing on the equipment. As can be seen in Table 2, many of the children also engaged in Exploratory Risk Appraisal ($n = 8$, 66%) and Moderate positive risk behaviours ($n = 7$, 58%). It was proposed that parents who were risk-takers themselves would have children who take greater risks as well. An independent samples $t$-test was conducted to compare the ATR scores for parents whose children were observed engaging in inappropriate risk-taking behaviour and those that did not engage in this higher level of risk-taking. There was a significant difference in the physical risk ATR scores for parents of moderate risk-takers ($M = 16.7$, $SD = 6.1$) and non-risk-takers ($M = 10.0$, $SD = 3.8$) $t(10) = 2.18$, $p < .05$ (one-tailed). Similarly, differences in the total ATR scores for parents of moderate risk-takers ($M = 26.1$, $SD = 13.2$) and non-risk-takers ($M = 12.0$, $SD = 5.9$) were also significant; $t(10) = 2.21$, $p < .05$ (one-tailed).

Due to the small sample and the imbalance in the number of boys and girls further statistical comparisons based on gender were not carried out, however, as can be seen from the mean percentage of play scores for each behaviour in Table 2, the exploratory risk behaviour of girls was three times that of the boys, and boys spent almost twice as much time engaged in very low risk behaviours compared to the girls.
Children’s risk-taking behaviour in relation to particular components of the playground structures was analysed using a matrix coding query with NVivo8. Exploratory risk appraisal was mainly associated with the monkey bar, horizontal track ride, fireman’s pole and complex ladders (e.g. those with curved rungs or vertical spirals). Moderate risk-taking was associated with a high spiral slide, spiral ladders, and children climbing on the guard rails of the equipment.

Children’s verbalizations. Table 3 summarizes the frequencies and means for each different type of utterances used by the children. All the children expressed competence in relation to some of the activities and all except one child also expressed doubt or fear in relation to other activities, indicating that at least some of the equipment was beyond their current skill and comfort level. In terms of requests for help or instructions, girls were twice as likely to request this type of assistance in comparison to boys. Girls were also twice as likely to express fear or doubt about completing some activities compared to boys.

### Table 3. Mean (SD) number of utterances by girls (n = 4) and boys (n = 8) during play

<table>
<thead>
<tr>
<th></th>
<th>Number of children</th>
<th>Number (%) of children</th>
<th>Mean (SD) of play</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Requests for directions/instructions</strong></td>
<td>5</td>
<td>180 (.84)</td>
<td>1.50 (.58)</td>
</tr>
<tr>
<td><strong>Requests for assistance</strong></td>
<td>9</td>
<td>256 (.51)</td>
<td>1.67 (.52)</td>
</tr>
<tr>
<td><strong>Expression of competence</strong></td>
<td>12</td>
<td>592 (.62)</td>
<td>5.63 (1.77)</td>
</tr>
<tr>
<td><strong>Expression of doubt or fear</strong></td>
<td>11</td>
<td>518 (4.81)</td>
<td>4.00 (1.60)</td>
</tr>
<tr>
<td><strong>Expression of intention to try an activity</strong></td>
<td>10</td>
<td>250 (.84)</td>
<td>2.29 (.76)</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>12</td>
<td>575 (.30)</td>
<td>6.62 (3.11)</td>
</tr>
</tbody>
</table>
Parents’ interactions with children during play. Table 4 summarizes the parents’ interactions with their children during the play episodes. All parents spent the majority of the time supervising the children’s play ($M = 67.4$). Other interactions were contingent upon children’s behaviour. The most prevalent other interactions were aimed at supporting children’s engagement in the activity through physical support ($M = 13.8$), encouragement ($M = 11.7$), praise ($M = 10.6$) and instructions on how to complete the activity ($M = 5.4$). These behaviours were observed for the majority of parents. In addition one mother was particularly involved in her child’s play and was observed using the equipment to model its use for the child. Only two parents were observed taking action to stop their child engaging in a particular behaviour by cautioning the child (6.5% of observed interactions for these parents) and physically preventing the child from engaging in a particular activity (2.5% of observed interaction). Analysis of the relationship between the different types of interactions using Spearman’s rank order correlation revealed that there was a significant positive correlation between the provision of physical support and the use of encouragement ($r = .82$, $p = .007$). Supervision was negatively correlated with the provision of explanations ($r = -.90$, $p = .037$).

As noted previously, due to the nature of the sample it was not possible to conduct further statistical analysis of the relationship between parent interactions, gender, and child behaviour. Nevertheless, as Table 4 shows parents of boys were more actively engaged with their child’s play compared to parents of daughters, and spent less time passively supervising the child’s play. Although infrequent (exhibited by two parents), preventative measures (cautions, directives to stop, and physical prevention) were only observed in response to the behaviour of boys.

Using NVivo software (QSR International, 2008), a coding matrix query was conducted in order to identify relationships between child behavior and adult responses. As can be seen from Table 5, the exploratory risk appraisal behaviour of the children elicited encouragement, praise and physical support from their parent as did low and moderate (positive) risk behaviours. It is interesting to note that although only two parents intervened to prevent or caution their child about a particular behaviour, this was not in response to higher risk situations possibly pointing to individual differences in perception of risk. The observed behaviours of the parents were in line with the comments they made during their interviews (as outlined previously), that is, providing support and encouragement in response to children’s attempts to challenge themselves and extend their current skill level. Comparisons of the parent interactions in terms of the equipment component being used by the child revealed that no specific piece of equipment elicited a particular response.

Table 4. Frequency of parent responses to children during play and parent mean physical risk, psychological risk and total ATR

<table>
<thead>
<tr>
<th>Interaction behaviour</th>
<th>Mean ATR Scores</th>
<th>Number (percentage)</th>
<th>Mean (SD) percentage of observed interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phys.</td>
<td>Psyc.</td>
<td>Total</td>
</tr>
<tr>
<td>Supervision</td>
<td>13.9</td>
<td>6.3</td>
<td>20.3</td>
</tr>
<tr>
<td>Physical support</td>
<td>13.7</td>
<td>6.1</td>
<td>19.9</td>
</tr>
<tr>
<td>Encouragement</td>
<td>14.1</td>
<td>6.3</td>
<td>20.5</td>
</tr>
<tr>
<td>Praise</td>
<td>14.3</td>
<td>6.4</td>
<td>20.8</td>
</tr>
<tr>
<td>Explanation</td>
<td>15.2</td>
<td>8.2</td>
<td>23.4</td>
</tr>
<tr>
<td>Instruction</td>
<td>13.8</td>
<td>6.0</td>
<td>19.9</td>
</tr>
<tr>
<td>Modelling</td>
<td>23</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Caution</td>
<td>23</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Directive to stop</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Prevention</td>
<td>23</td>
<td>9</td>
<td>32</td>
</tr>
</tbody>
</table>
Discussion

Parental beliefs and socialization practices not only impact on children’s developmental outcomes but also expectations for behaviour and participation in particular activities. Previous studies have found that parent socialization practices play an important role in influencing children’s independent decision-making in risk situations. Specifically, differential responses to the risk-taking behaviour of sons and daughters are thought to contribute to greater incidence of risk-taking in boys compared to girls (Morrongiello and Dawber, 1999, 2000). Using observational and interview data, the present study aimed to complement the findings of previous studies by examining the relationship between parents’ responses to their child’s risk-taking behaviour during physical play and their beliefs about risk and risk-taking. Overall the findings from this study illustrate that parents’ beliefs about risk-taking are reflected in their responses to their child’s risk-taking behaviour during outdoor play.

Children’s risk-taking behaviour

As predicted, those children who engaged in moderate risk behaviours had parents who had higher total and physical risk scores on the ATR. There are at least three possible, and not necessarily mutually exclusive, explanations for this which can be derived from Morrongiello and Lasenby-Lessard’s (2007) model. First, children of risk-takers may have a temperament that predisposes them to becoming risk-takers. Second, parents who are risk-takers themselves may encourage greater risk-taking in their children, be more tolerant of the risks their child takes thus reinforcing the behaviour, and model more risky activities. Lastly, parents are likely to engage in niche picking (Morris et al., 2007), which in this case would involve selecting or avoiding contexts for their children which are consistent with their own risk-taking beliefs.

Due to the small, imbalanced sample statistical comparisons of gender differences in the children’s risk-taking behaviour, as identified in previous studies, were not possible. It is worth noting though that comparison of mean scores for the observed categories of risk behaviour for boys and girls revealed differences in the exploratory risk appraisal and low risk categories. The observed differences suggest that the girls exhibited greater wariness in engaging activities that might be beyond their current skill level, whereas for boys, the equipment was mostly well within their current ability and thus presented no challenge.

Table 5. Frequency of observed parent responses as a function of child risk-taking behaviour

<table>
<thead>
<tr>
<th>Parent interaction</th>
<th>Risk avoidance</th>
<th>Exploratory risk appraisal</th>
<th>Very low/ no risk</th>
<th>Low risk – positive</th>
<th>Low risk – negative</th>
<th>Moderate risk – positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision</td>
<td>2</td>
<td>8</td>
<td>11</td>
<td>12</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Physical support</td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
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<td>Explanation</td>
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<td>Directive – to stop</td>
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Parental beliefs

Parents in this study believed a willingness to take risks was an essential part of their child’s learning and development, contributing to motor and problem solving skill development as well as their child’s confidence and self-esteem. The parents highlighted that risk was both contextual and subjective; hence they explained that their responses to their child’s risk-taking varied according to the situation. Thus, while they supported their child’s positive risk-taking in attempting novel activities or challenging themselves beyond their current capability, they intervened in situations where the likelihood of injury risk was high or the child’s behaviour was not deemed acceptable. Unlike previous studies which have found that parents perceive risk-taking behaviour as more acceptable for boys than girls (Morrongiello and Dawber, 1999, 2000), neither the parents’ interview responses nor their interactions during play suggested that they responded differentially to the behaviour of sons as compared to daughters. The views expressed by the parents in the current study echo those of the parents in Kelley and colleagues’ (1998) study who believed that encouraging their children to take appropriate risks was important for them to become competent adults but at the same time they needed to protect them from risk. In addition, as with the parents in Lewis et al.’s (2004) study, the parents in the present study also believed that children learnt from taking risks and from any resultant injuries.

Parent beliefs about factors contributing to children’s injury-risk behaviours may also influence their responses. Morrongiello and Dawber (1999) found that parents differed in their beliefs about whether they influence their child’s behaviour or whether child behaviour was a result of innate characteristics. The parents in the current study held diverse beliefs regarding factors contributing to children’s engagement in injury-risk behaviours (e.g. inexperience, innate characteristics, imitating other children) although these did not appear to influence their responses to their child’s risk-taking behaviour suggesting that overall they believed that ultimately they play a significant role in mediating their child’s behaviour.

Parental teaching practices

Play contexts such as those experienced by children at park playgrounds provide opportunities to encounter and manage everyday risks. By encountering risk in situations such as this, children simultaneously confront risk and learn to manage it by exercising care, through assessing the situation in relation to their own capabilities, thereby avoiding injury-risk behaviours (Christensen and Mikkelsen, 2008). For preschool-aged children such as those in the present study, encounters of risk in these everyday situations are likely to be under the supervision of parents or other adults. Supervision by adults is a vital component of ensuring child safety and the parents in this study adopted this role for the majority of the time spent at the park playground. This is in line with the findings from Vincenten et al.’s (2005) study of parent beliefs about safety in 14 countries which revealed that ‘watching children while playing’ was the second most frequent injury prevention strategy adopted by parents.

While parents in this study spent most of their time supervising their children without being actively engaged, encouragement, instructions, physical support and modelling were frequently used by the parents to support their child’s play. The modelling of correct ways to use the equipment, and provision of physical support, instructions and explanations provided by the parents in this study are strategies for guiding children’s behaviour and helping them to learn safe practices. Strategies such as these provide a scaffold for children’s learning allowing them to safely engage in activities that might otherwise be beyond their ability. In particular, modelling and instructions support children’s development within their Zone of Proximal Development (Vygotsky, 1978) by
allowing them to imitate behaviours that are within their developmental level but beyond what they can currently achieve independently. Previous studies have found that while young children (four-to-six-year-olds) are capable of recognizing behaviours and situations that involve injury risk (Coppens, 1985; Hillier and Morrongiello, 1998), they experience difficulty determining the severity of any potential injury, are often slower in making judgments and are less able to suggest preventative measures (Hillier and Morrongiello, 1998). Hence, the feedback that children receive from adults in response to their behaviour during play has a vital role in children’s developing ability to make appropriate independent risk decisions. This has particular significance for those children who may be predisposed to higher levels of risk-taking (e.g. high sensation seekers, impulsive children and males). Furthermore, in contrast to the findings from Kindleberger Hagan and Kuebli’s (2007) study, parental instructions and explanations provided to children did not differ as a consequence of child gender, suggesting that the parents in the current study recognized the importance of providing this type of guidance for their child regardless of the child’s gender.

Backett-Milburn and Harden (2004) found that parents varied in their risk assessment and decision-making in risk situations that in turn influenced the degree to which they allowed children to exercise agency or conversely restricted their children’s freedom. Parents in the present study held similar beliefs about the importance of supporting children’s positive risk-taking and encouraging them to face challenges. The high levels of passive supervision of the children in contrast to active engagement in the children’s play suggest that these parents allowed their children relative freedom to exercise agency. In addition, unlike previous studies (e.g. Morrongiello and Dawber, 1999, 2000) which suggest that parents provide more support for their daughters compared to sons, the parents in the current study spent more time actively engaged with sons and passively supervising daughters. When the observations of the parents’ interactions with their children during play were considered in conjunction with their interview responses it became apparent that responses to children’s risk-taking behavior are context dependent. As Backett-Milburn and Harden (2004: 430) point out, understandings of risk, safety and danger ‘are not fixed but shifting entities which are reconstituted and negotiated through everyday interaction in families’. This supports previous studies which explain parental beliefs as being ‘situation-specific, varying as a function of the childrearing context’ (Coplan et al., 2002: 2).

Limitations

Overall, this study makes a contribution to the growing body of research which demonstrates that children often seek the experience of risk in their play (Sandseter, 2007; Stephenson, 2003) and that the adults in their lives have a vital role in both guiding children’s developing risk appraisal skills and in providing environments in which children can safely experience a degree of positive risk-taking. Nonetheless, there are some limitations that need to be acknowledged.

In respect to the support given by parents during play, no differentiation was made between situations where parents spontaneously provided support or when the support was given in response to the child’s request. In higher risk situations, it is possible that parents would be more likely to spontaneously provide support in order to prevent injury, however, as none of the children engaged in higher levels of risk-taking it is not possible to comment on this aspect of the parents’ responses. Furthermore, in addition to the active strategies used by the parents (physical support, modelling, cautions, etc.), parents may also use more passive strategies while watching their children’s play such as facial expressions or gestures to indicate their approval/disapproval of their child’s behaviour. While it was not possible to code for these types of behaviour in the present study, further consideration of the role of such strategies in future studies would be beneficial.
Other limitations relate to the size and homogeneity of the sample. In particular, parents were predominantly from well-educated, Anglo-Australian backgrounds, thus their views and behaviours may not be representative of parents from other socio-economic and cultural backgrounds.

Conclusion

As Christensen and Mikkelsen (2008: 128) point out, supporting ‘children’s self-care skills through their risk engagement rather than promoting risk avoidance’ is important for fostering children’s developing risk appraisal and management skills. The ages of four to five years represent a transitional period as parents move from assuming total responsibility for making risk appraisals for their child, to gradually allowing children greater autonomy and agency (Hyson and Bollin, 1990). Parent teaching practices during this period are significant in ensuring that children develop the skills necessary to make independent risk decisions. Parent beliefs about risk and safety are likely to influence the extent to which children’s healthy positive risk-taking is encouraged. Future research examining parent beliefs and responses to risk across a broader range of child ages to identify changing patterns of behaviour, utilizing observational studies within neighbourhoods and on a wider scale would greatly increase current understanding of the influence of parent beliefs and socialization practices on children’s risk appraisals and risk-taking behaviour.

References


**Biographical note**

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