Young Children's Meaning-making About the Causes of Illness
within the Family Context

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Abstract

With the current prioritising of child health promotion, practitioners in health, education, and social services are facing the challenge of providing effective health education programmes for young children. Appreciation of the role that families play in young children's meaning-making about the causes of illness is likely to assist practitioners to reach this goal. To date, researchers have largely sought to determine children's understanding at various stages of cognitive development rather than exploring how children might acquire, process, and share their knowledge within particular social contexts. However, attention is increasingly turning to sociocultural aspects of children's learning and development, and the need to explore the various ways in which children's knowledge of health and illness is acquired in everyday contexts.

Adopting a socioconstructivist perspective of children's learning and development, and using a narrative methodology, this study sought to identify the ways in which young children's illness causality concepts are embedded in the sociocultural context of the family. In-depth interviews were undertaken with five four-year-old children, their parents/guardians, sibling/s aged five to nine years and two other family members (29 participants in total). Participants reflected a diversity of cultural communities, spiritual orientations, and family structure. To aid the elicitation of young children's narrative accounts of illness causality, children were invited to create a storybook about 'getting sick' utilising art materials and photographs of children experiencing illness. A social interactional approach was then employed to interpret participants' narratives.

Findings indicate that preschoolers draw heavily on their family contexts in their meaning-making about the causes of illness. Furthermore, young children's illness causality constructions are significantly influenced by the particular illness experiences, illness prevention messages and behavioural rules within their families. Consequently, researchers are encouraged to further explore the social construction of children's knowledge, and practitioners are urged to utilise children's existing understandings and associated family practices as the context for children's learning about health and well-being. By viewing family members as essential partners in the education of young children, practitioners may be better placed to develop effective health education programmes and provide enhanced psychosocial support for young children and their families.

Preface

The content of this thesis is based on research undertaken during two separate enrolments with two different faculties between October 2003 and September 2012. I began this thesis under the auspices of the Department of Learning and Teaching at Massey University but, due to ill health in my immediate family, needed to suspend my studies in July 2005. Returning to the doctoral programme in March 2010, with my previous supervisors having retired and/or relocated overseas, I commenced my study under the guidance of health psychology staff within the School of Psychology at Massey University. I believe that this thesis has benefited from my involvement with both faculties, and that the passage of time and ensuing academic, professional and life experiences during the past nine years have served to enhance this study.

The research described in this thesis was also disseminated in three research manuscripts which were published in the following journals: 'Early Child Development and Care'; 'Health'; and 'Psychology, Health and Medicine' over the period 2012-2013 (see Appendix 1). While my supervisors, Dr Christine Stephens and Dr Antonia Lyons, provided valuable advice regarding the publication of these manuscripts and are included as co-authors on the papers, the ideas contained within this thesis are entirely my own.

Ethical approval for this study was obtained from the Massey University Human Ethics Committee (reference number 04/68), and the kindergarten management's research access and ethics committee (approval granted May 2005). In June 2010 ethical approval was extended for a further two years (to June 2012), and retention of the data extended until June 2014. Additionally, a series of letters were sent to participants informing them of the progress of the research (see Appendices 2-4).

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Chapter One – Background

'If I sleep, I'll get more fever like my brother' (Eva, age 4)

1.1   Focus of inquiry

Young children's spontaneous explanations for illness, like that offered by Eva (above), signal the impact of family experiences, beliefs and practices on children's understandings of health and illness. Eva's remark, shared during preliminary fieldwork for the current study, is reflective of the illness events and understandings within her family; a notion further highlighted in the following comments independently shared by her grandmother: 'If they (referring to her grandchildren) lie down on the bed they get more sick. You get them to eat and play and run so they will get better. They are sick when they are too lazy'. Such comments provide an insight into the contextualised nature of illness understandings and the need to view illness causality concepts as social constructions which evolve via participation in family life and cultural communities. Recognising four-year-old children's ability to communicate their own meanings regarding illness causality (see Myant & Williams, 2005), and appreciating the relationship between cultural beliefs regarding illness causality and children's illness understandings (see McIntosh, 2000; Zhu, Liu, & Tardif, 2009), I sought to examine the ways in which young children's illness causality concepts are embedded within the sociocultural context of the family.

1.2   Significance of the topic

With the current drive towards child health promotion and health literacy programmes (see National Health and Hospitals Reform Commission, 2009; US Department of Health and Human Services, 2001)*,* practitioners in health, education and family support services are facing the challenge of providing effective health education programmes for young children. Greater understanding of preschoolers' illness causality conceptualisations is likely to help practitioners as they encourage children's adoption of illness prevention strategies and healthy lifestyles. Additionally, increased awareness of children's illness causality concepts is likely to assist practitioners to meet the psychosocial needs of young children who are attempting to make sense of illness. Such interventions need to be appropriate to the child's level of cognitive development

(Reisenberg, 2008; Whitener, Cox, & Maglich, 1998), however, the nature of preschoolers' understanding of illness causality is much debated (Myant & Williams, 2005).

To date, practitioners have largely been guided by traditional child development theory which emphasises children's predictable and universal progression through particular stages of development. Much of the literature regarding the illness causality conceptualisations of young children is based on developmental models and features cognitive frameworks such as pre-operational thought (Bibace & Walsh, 1980; Brewster, 1982), domain knowledge (Markman & Gentner, 2001; Ross, Medin, Coley, & Atran, 2003) and vitalistic thinking (Inagaki & Hatano, 2002; Slaughter & Lyons, 2003). Furthermore, in many cases categories have been predetermined and data collection methods selected so that such categories of responses could be recorded and quantified (Buchanan-Burrow, Barrett, & Bati, 2004; Williams & Binnie, 2002).

During the 1970s Piaget's model of cognitive development (Piaget, 1952) dominated the psychological literature. Within this approach, children's knowledge is viewed as domain-general, and follows a universal developmental sequence. In-keeping with Piagetian notions, Bibace and Walsh (1980) developed a maturational framework emphasising the young child's use of pre-logical explanations of illness based on phenomenism and contagion. Concepts such as immanent justice and over-extension of contagion are well documented in the literature of the early 1980s (e.g. Brewster, 1982; Kister & Patterson, 1980; Perrin & Gerrity, 1981). However, researchers have since found that young children have a more sophisticated knowledge of the causes of illness (see Bird & Podmore, 1990; Robinson, 1987; Siegal, 1988).

Recognition of young children's ability to differentiate causal reasoning across content areas has had a significant impact on the field (Carey, 1995; Inagaki & Hatano, 2002). Studies have shown that young children may hold multifaceted beliefs regarding illness causality (Legare & Gelman, 2009), and their biological reasoning may encompass both culture-specific notions and cross-cultural universalities (Legare & Gelman, 2009; Zhu et al., 2009). However, while some studies have related familial and cultural practices to biological understandings, few have specifically focused on illness (Zhu et al. 2009),

and Bibace and Walsh's maturational model continues to form the basis of many studies of illness causality conceptualisation (Myant & Williams, 2005).

Currently, there is a need for contextually based research regarding young children's understanding of health that can inform both the field of cognitive development and the design of educational programmes (Au et al., 2008; Legare & Gelman, 2009; Zhu et al., 2009). As Thomas and Mulvey (2008) note, 'North American psychology and biomedical models of health and illness have traditionally separated people from social and historical contexts, oversimplifying, overgeneralizing and reifying them in the process' (p. 242). However, there is now increasing awareness within the field of health psychology regarding the need to explore how people make sense of illness within their social worlds (Stenner et al., 2006).

The family is the fundamental social context for young children, and viewing children within the context of their family is widely supported (Graue & Walsh, 1998; Rogoff, 1990; Woodhead, 2000). Actively participating in family life, children develop an understanding of the language, habits and values that are important to their family group. As described by Manoogian, Harter, and Denham (2010), 'over time, routines develop and understandings solidify about "how things are done" and "what things mean"' (p. 42). In this way, the habits which serve to enhance or jeopardize health are also grounded in family practices (Bandura, 2004). However, while the cultural context of family meanings is a core feature of research in several fields, the relationship between young children's meaning-making about health and illness and their participation in family life is largely unexplored.

Predominantly focusing on the nature of children's knowledge, rather than the ways in which such knowledge is acquired, the majority of studies focus on children's predictions, however recent literature suggests that young children's naïve biological reasoning may be better revealed by children's explanations (Legare, Wellman, & Gelman, 2009). Zhu et al. (2009) asked Chinese preschoolers to explain why people get sick, and Legare et al. (2009) compared young children's predictions and explanations for contamination. In both studies children's responses demonstrated explanatory depth even though they lacked scientific detail. Thus, young children have the ability to

provide their own spontaneous explanations for illness, yet such meanings are seldom the focus of research.

Since the 1990s there have been concerted efforts within the fields of education and social practice to listen to children's meanings. This move has largely been inspired by an emerging strengths-based view of children's capacities (as opposed to existing deficit models), and the recognition of children's right to express their ideas. Research within this newer framework is implemented *with* children rather than about them to the extent that some researchers state that it is time for researchers to move beyond a concern for children's 'voices' and towards transforming inequitable power relations in our research with them (Fasoli, 2001; MacNaughton, 2003). Thus, researchers are increasingly viewing young children as active meaning-makers who are competent research participants (see Darbyshire et al., 2005; Powell & Smith, 2009).

1.3   Impetus for the study

The study of young children's meaning-making regarding illness causality in relation to the familial context is of interest to me on both a professional level and a personal level, and draws on a range of theoretical perspectives, cross-disciplinary practice, and research.   .

Theoretical influences and socio-historical context
My educational background and participation in various cultural communities have played a key role in my decision to pursue this inquiry. As a university student of psychology in the mid 1980s my initial training emphasised the psychoanalytic theories of Freud (1959), psychosocial framework of Erikson (1965), cognitive-stage theory of Piaget (1952), behavioural theories of Skinner (1978), and social learning theories of Bandura (1977). Following university study I undertook the Diploma of Kindergarten Teaching and continued to pursue my dual interest in developmental psychology and working with young children. During this time I was residing in a New Zealand city with a largely mono-cultural, Pakeha European population.

However, in search of work in the late 1980s, I moved to arguably New Zealand's most diverse city in terms of cultural participation, language, and spiritual orientation (see

Davis, Bell, & Starks, 2001). This relocation had a profound influence on my worldview and helped to shape the nature of this inquiry. I found working with children and their families across diverse familial contexts to be extremely stimulating and enjoyable, and the source of much learning. In the late 1990s, while still working in the field of early childhood, I undertook further training in educational psychology. During this period, the socio-constructivist theories of Vygotsky (1978), grounded theory of Glaser (1978), ecological framework of Bronfenbrenner (1979), and sociocultural perspective of Rogoff (1990) were receiving attention. As my original training had involved minimal attention to issues of culture and diversity, the generation of new theory seeking to explore individual, familial *and* cultural issues regarding development, rather than assuming a Western stage-like orientation for all populations, was exciting and prompted me to learn more, participate more and open my mind to new possibilities.

Professional interest

Professionally, my interest in the focus of this inquiry stems from my work with children and their families in early childhood settings and has particular significance for my work as a hospital play specialist. The role of the hospital play specialist primarily involves providing a comprehensive therapeutic play, education and preparation programme for children and young people in the hospital setting. Building supportive and effective relationships with families is a crucial aspect of the hospital play specialist role along with viewing the child or young person in the context of his or her family and the wider community.

During the course of their work, hospital play specialists witness children and their families trying to make sense of an illness event in the family. The search for meaning may give rise to questions such as: Why did this happen? Did I do something to cause this? What could we have done differently to prevent this? Is this God's will? Each family's circumstances are unique and each family member makes sense of the event in his or her own way and in their own time. Young patients, and particularly siblings of these children, often have many questions and need the opportunity to communicate their thoughts and feelings on these issues. However, in my professional capacity, I have witnessed health practitioners ignoring children's concerns regarding illness causality, underestimating children's capabilities and understanding, and dismissing the

perspectives of family members as irrelevant. Hospital play specialists believe that it is important that practitioners support children and their families through the meaning-making process addressing psychosocial needs and utilising support services as necessary. Oftentimes there are no answers to the questions and listening to the stories is the best way to support the family. The stories of children and their family members reveal the meanings that have been constructed or are in the process of being constructed or reconstructed, and may be communicated via creative modes of expression such as play, art, letter-writing, and music as well as via verbal narrative.

The inquiry into young children's meaning-making regarding the cause of illness with attention to familial contexts is also responsive to priorities within education curricula and practice regarding the social contexts of children's understandings. The study links directly with the philosophy of working in partnership with families in the areas of early childhood education and special education, and has particular relevance to New Zealand's early childhood curriculum 'Te Whariki' (Ministry of Education, 1996) which takes a sociocultural approach to children's learning and development, builds on children's prior knowledge, interests and experiences, and makes connections with the everyday activities within families and communities. Consequently, the findings of the current inquiry are likely to be particularly useful for educators within the field of early childhood education including hospital play specialists, special education practitioners, health educators, and family support workers.

Personal interest

My personal interest in the focus of inquiry arose from a curiosity in models of health and illness, spirituality, and cultural communities as well as from personal experience with children and families seeking to make sense of illness events in their lives. Such an orientation has led me to believe that meaning-making regarding illness causality is a universal phenomenon cutting across dimensions such as age, gender, cultural participation, socio-economic level, living arrangements and family grouping. Illness causality constructions are unique to the individual located in a particular context at a certain point in time. In mainstream Western culture, being 'educated regarding the causes of illness' equates with being educated in the biomedical model, and 'folk illness' is often considered to be an inferior version of 'real' biomedical illness that is described in medical texts and treated by the medical profession (Lupton, 2003).

However, for many families, the biomedical model does not fit with their everyday beliefs regarding the cause of illness. Furthermore, as noted by Stoeckle and Barsky (1981), folk explanations for illness persist despite higher educational levels. My personal and professional experience leads me to appreciate the myriad of possible causes of illness, both biomedical and non-biomedical, and the importance of respecting people's personal and cultural beliefs. As in the postmodern world – there are multiple realities, multiple truths and everyone has his or her own story regarding an illness event and its causes.

1.4   Continuing research

The focus of inquiry follows on from my previous research exploring the relationship between cultural belief systems and the illness causality concepts of young children (see McIntosh, 2000). Twenty 4-year-old children from four different ethnic groups (all attending a public kindergarten in New Zealand) participated in the study along with their parents/caregivers.

Initially, background information was gathered via kindergarten enrolment records, interviews with teaching staff, and interviews with parents/caregivers especially regarding children's illness experiences and cultural belief systems within the child's sociocultural context. Subsequently, on an individual basis, the children and their parents were shown a series of photographs depicting children experiencing illness, and were asked open-ended questions in order to uncover aspects of the relationship between sociocultural factors and illness causality concepts. Children's responses to the task reflected their own experience of illness along with that of their family members and significant others in the children's lives, and largely featured behavioural actions of self and others as causal mechanisms for illness.

Findings from the study support socio-constructivist models of illness causality conceptualisation in which sociocultural factors intervene to make the developmental sequence not as systematic as traditional maturational models propose. Findings also indicate the need to explore children's views of illness causality in relation to the sociocultural context of the family.

1.5   Research question and aims of the study

This body of research addresses the following question: How are young children's illness causality concepts embedded within the sociocultural context of the family?

The aims of the inquiry were:

(1) To explore young children's meaning-making regarding illness causality

(2) To explore illness causality constructions within the young child's familial context

(3) To explore social processes within the familial context involved in meaning-making regarding illness causality

1.6   Meaning of terms

Family

This study takes a broad perspective regarding the nature of 'family' and the 'family context'. As Bell, Johnson, Desai, and McLeod (2009) note, the word 'family' has no standard definition. Families may be temporary or enduring, and may well include friends and significant others who are not connected by blood, marriage, de facto union, adoption or fostering arrangements but are drawn together solely from a desire for mutual support (see Arango, 1990). Factors such as participation in family rituals, amount of time spent together, and living under the same roof or in close proximity may impact on definitions of 'who is and who isn't' part of the family group (Mason & Tipper, 2008). Furthermore, the make-up of the family group is best defined by the family members themselves. In the case of children in healthcare settings, it is the child concerned and those close to him or her, who have the right to determine the family group (Children's Hospitals Australasia, 2011).

Illness

In the present study, the term 'illness' denotes a 'state of ill health' and thus allows for various personal and cultural definitions of illness. Culture plays a critical role in definitions of illness (see Stein, 2011). However, the notion that our understandings of health and illness are constructed as we interact with others within our social and cultural worlds runs counter to the biomedical model of health and illness which is in itself a social and cultural construct (Lyons & Chamberlain, 2006). As poignantly

described in the book 'The Spirit Catches You and You Fall Down' (Faidman, 1997), families participating in different cultural communities can hold very different illness beliefs to those espoused by the medical profession in Western society leading to a cultural divide with far-reaching effects.

Young child/preschooler

Young children are the central focus of the present study and, in the context of this thesis, the terms 'young child' and 'preschooler' refer to children aged between 3-5 years. In New Zealand, unlike many other countries, most children begin formal schooling on their fifth birthday under a policy of continuous entry to new entrant classrooms (Gallagher, 2008), even though the legislation does not require children to attend school before their sixth birthday. Attendance at an early childhood education service such as a kindergarten is voluntary in New Zealand. For ease of reading, the terms 'young child' and 'preschooler' are used interchangeably throughout the thesis.

1.7   Outline of the thesis

This thesis comprises eight chapters. In chapter two, I present an overview of the key literature regarding young children's conceptualisation of illness causality. This review of the literature charts the historical dominance of maturational frameworks of illness causality conceptualisation within the cognitive development literature, the subsequent challenges to these traditional models that arose with the recognition of domain-specific knowledge, and the current interest in contextual aspects of children's illness understandings. Drawing upon theoretical models and best practice guidelines in both the health and education sectors, I outline current points of debate regarding children's illness understandings and recommendations for future research and practice.

In chapter three, I present the methodologies guiding this study. The research is located within a socio-constructivist framework and draws on elements of sociocultural theory, ecological theory and family systems theory. As the study utilises a narrative approach to explore children's illness understandings within the family context, chapter three presents a description of narrative inquiry as both phenomenon and method. The chapter also includes background material regarding different views of 'childhood' and research

with young children which further helps to situate the inquiry and sets the scene for the following method chapter.

Chapter four features a description of the narrative methods utilised in this study. The chapter begins with demographic details of the study participants and an explanation of the recruitment process. Subsequently, data collection methods are described in full with particular attention given to the storybook process that was developed and implemented to help elicit young children's narrative accounts of illness causality. These narrative methods are the subject of reflection and evaluation in later sections of the chapter.

In chapter five I focus on the analytic methods adopted within the current study. Firstly, I outline the key issues involved in the selection of an analytic method for this body of work. I then provide a description of the social interactional approach utilised in this research and highlight the rationale for selecting this method of analysis. Reflections on the use of this analytic method within the current study are also included in this chapter.

The results of the analysis are presented in chapters six and seven. In chapter six I report on young children's behaviour-based understandings of illness causality with the aid of narrative extracts from interviews with children. In particular, the illness prevention messages and behavioural rules prevalent in children's stories are highlighted and discussed. Reflections on young children's illness causality constructions in relation to theory are also provided in this chapter. In the following chapter, chapter seven, I present the results of young children's meaning-making within the family context. Utilising data from in-depth interviews and follow-up communication with young children and their family members, I present findings regarding children's meaning-making via participation in family life, and children's meaning-making in relation to the family context. Findings are then discussed with reference to key literature in the field.

In the final chapter of the thesis, chapter eight, I return to the aims of the inquiry and outline the key arguments and contributions of the thesis. I also discuss the implications of study findings for research and practice, and provide suggestions regarding practice in applied settings. Additionally, I detail the strengths and limitations of the study and suggest ways in which the research community might progress these understandings. I

close the thesis with final thoughts regarding the research journey as a whole and provide concluding statements concerning the embeddedness of young children's illness causality concepts within the family context.

Chapter Two – Views on young children's knowledge of illness causality

2.1 Introduction

The study of young children's conceptualisation of illness causality has undergone remarkable change over the last three decades with the continual discovery of new evidence challenging aspects of existing frameworks and propelling the field forward. Over this time, theories and research methodologies have been substantially revised, and some leading experts in the field have adapted their stance on developmental issues in the light of new knowledge (e.g. Eiser, 1985; 1989). However, such changes have not necessarily been embraced by all those studying or working with young children. Consequently, literature regarding young children's conceptualisation of illness causality features diverse theoretical perspectives and disparate guidelines for best practice in research and applied settings. Not only has this topic generated much debate, but aspects of the debate have played out across several disciplines and sub-specialty areas such as cognitive psychology, cross-cultural psychology, anthropology, early childhood education, health education, paediatrics, and nursing.

The following literature review highlights the key theories, and supporting research, that have influenced inquiry into young children's illness causality understandings. While studies of young children's conceptualisation of illness causality are prolific in the cognitive development literature, very few investigations focus on children's own explanations for illness and even fewer attend to familial factors. Conversely, studies within the field of education place great emphasis on eliciting children's own meanings about aspects of their world, and draw attention to the role of the family context in children's knowledge construction, however, to date such studies have not elicited the views of young children with regard to illness causality or considered these meanings in relation to the child's family context. Recent research within the fields of science education and health education provides rich data regarding the way in which the family context mediates children's learning about health, however this research has been undertaken with older children and their families (see Reeve & Bell, 2009). By bringing together current initiatives and findings within the disciplines of psychology, education, and health (amongst others), young children's understandings of the causes of illness may be better identified.

Until recently, studies of young children's conceptualisation of illness causality have largely focused on the nature of children's illness causality concepts rather than attending to the ways in which concepts are acquired in particular sociocultural contexts (Gelman, 2009). Consequently, this literature review firstly addresses notions regarding the form of young children's illness causality concepts that have influenced the field over the last three decades, and generated much debate during this time (see sections 2.2 and 2.3). In the following sections, more recent literature regarding young children's acquisition of illness causality concepts is discussed (sections 2.4 and 2.5). Having addressed the significance of everyday contexts for children's learning in this area, attention is then drawn to the importance of children's prior understandings (section 2.6), and possibilities for furthering research and practice (section 2.7). The final section of the chapter features a summary of the material covered in this review (section 2.8).

2.2   Dominance of maturational models

The cognitive development theories of Jean Piaget (1952) have provided the baseline for much of the research regarding young children's understanding of the causes of illness. During the 1970s and the early 1980s the Piagetian model of cognitive development, with its accompanying universal maturational framework featuring discrete stages of development aligned with particular age-groups, dominated the literature. According to Piagetian theory, children aged approximately 3-7 years are in the pre-operational stage of cognitive development characterized by the child being able to view only one aspect of a phenomenon at a time, finding no conflict in circular reasoning, and not being able to generalise from one experience to a similar one. Thus, inherent within this approach is the belief that knowledge is 'domain-general' i.e. the reasoning employed by children is content-independent. Children adhere to a logic that is qualitatively different from that of adults - a logic that relies on different principles and follows a developmental sequence (Bibace & Walsh, 1980). Consequently, children are incapable of understanding that is characteristic of more advanced stages of development. Development is considered to be dependent upon maturational processes in the first instance with sociocultural factors considered of secondary importance (Eiser, 1989).

The most prevalent, and arguably most influential, model regarding children's conceptualisation of illness causality is the age/stage framework developed by Bibace and Walsh (1980). Drawing on the theories of Piaget, Bibace and Walsh emphasised a sequence of conceptualisation through childhood and into adolescence - a sequence that is both predictable and universal. This framework emphasises the pre-operational child's use of pre-logical explanations of illness based on phenomenism and contagion with the young child being swayed by the immediacy of some aspects of his or her perceptual experiences. In this model young children view illness as something that either happens by magic or by their own doing. Concepts such as 'immanent justice' (children viewing illness as a punishment for their transgression of the rules) and over-extension of contagion (children believing that temporal or spatial proximity with an object or an event causes the illness) are highly evident in the literature of this period (e.g. Brewster, 1982; Kister & Patterson, 1980; Perrin & Gerrity, 1981). Such early studies recommend that adults provide children with an explanation of illness that is aligned with the age-related framework. In this way, the adult assists the child to understand the physical cause of illness and consequently helps to lessen the fear and guilt experienced by children when they are ill. Thus, within the cognitive development literature of this period, substantial emphasis is placed on young children's cognitive immaturity and their perceived inability to understand the causes of illness (see Rushforth, 1999).

2.3   Challenges to traditional approaches

For many years Piagetian-based perspectives of children's understanding remained unchallenged, however research conducted from the mid-1980s onwards began to question traditional assumptions, and helped to generate alternative theories of children's thinking. Carey (1985), a major critic of the age/stage approach, argued that children's reasoning is neither 'constrained at the structural level' (Eiser, 1989) nor qualitatively different to that of adults. Carey proposed the idea that children can achieve greater understanding with increased knowledge and highlighted this notion in her 'novice to expert shift' theory. According to Carey's perspective, the more knowledge a person has of a particular subject, the better placed they are to understand that subject. Similarly, Eiser, Eiser, Lang, and Mattock (1990) argued that young children's knowledge may be limited by their inexperience. Thus, researchers began to

consider that knowledge acquisition, rather than cognitive development, might be the key factor in children's understandings (Rushforth, 1999). Seeking an alternative to the 'structuralist' orientation of maturational models, newer theories favoured a 'functionalist' approach which emphasised sociocultural factors and the impact of experience (see Nelson, 1986).

Meanwhile, studies of young children's understanding of illness causality began to highlight the existence of domain-specific knowledge, rather than the domain-general knowledge emphasised in stage-based theories, and queried the universality of children's conceptualisation. Researchers such as Robinson (1987) and Siegal (1988) found that young children have a more sophisticated knowledge of the causes of illness than was previously noted. Siegal's (1988) study showed that even preschoolers realise that contagion is domain-specific, for example, toothaches are not contagious. Likewise Bird and Podmore (1990) found that only colds and chicken pox were explained with the use of contagion and did not find evidence of children overextending the concept. Thus, while Piagetian notions of the *progression* of children's understanding of illness were largely accepted, the assumption that children's 'misconceptions' and 'partial understandings' were inevitable given children's level of cognitive maturity was strongly disputed (Rushforth, 1999). Furthermore, revelations that children were more knowledgeable about the causes of illness than had previously been suggested, prompted researchers to argue that children have the capacity to benefit from health education regarding illness causality and preventative measures (see Hergenrather & Rabinowitz, 1991; Holaday, LaMontagne, & Marciel, 1994).

2.4   Intuitive/naïve theories perspective

The discovery of children's ability to differentiate causal reasoning across different domains heralded an 'intuitive' or 'naïve' theories perspective regarding children's understandings of the world (see Inagaki & Hatano, 2002; Wellman & Gelman, 1992). According to the naïve theories perspective, all humans engage in 'folk science' i.e. ideas about the world that are acquired informally rather than via formal learning of scientific tenets (Carey, 1988; Keil, 2010). From an early age children construct intuitive theories to make sense of their environment, and the causal mechanisms that they employ are specific to particular domains of knowledge (Sigelman, 2012). These

domain-specific understandings are labelled as 'intuitive' or 'naïve' theories because they embody a collection of beliefs which appear to have the consistency of scientific theories (Carey & Spelke, 1996; Keil, 2010). Emphasising the embeddedness of causal understandings in 'social networks of knowledge resources', an intuitive theories perspective suggests that even though people might have very rudimentary ideas about how the world operates they may be adept at drawing on information sources within their sociocultural contexts (Keil, 2010).

With regard to children's understanding of illness causality, a naïve theories perspective attends to children's 'folkbiological' understandings i.e. the everyday understandings of biology that exist within cultural communities (see Inagaki & Hatano, 2002). As noted by Bares and Gelman (2008), current research suggests that 'children's reasoning about biological phenomena is indeed separate from their psychological understandings of the world' (p. 443). Further, it is argued that rather than replacing folk beliefs (e.g. 'cold weather causes colds and flu') with scientific beliefs, children continue to engage in folkbiological reasoning even after they have been exposed to formal scientific instruction (see Ramon & Winer, 2002; Sigelman, 2012) thus allowing the two beliefs to co-exist. Leading experts in the field of cognitive psychology are now suggesting the co-existence of multiple causal explanatory theories within an individual. Referring to evidence of religious or supernatural explanations for illness, Gelman and Legare (2011) note that such beliefs persist across the lifespan, 'are constructed and elaborated through socialisation and cultural learning, and may be founded on earlier intuitive explanations' (p. 390). This notion of co-existing explanations for illness is at variance with traditional maturational models of illness causality which maintain that with maturity children will cease to engage in 'magical thinking' and favour scientific explanations for illness (see Harris, 2009), and is also at variance with theoretical models that argue that children and adults will adopt scientific explanations for illness when they are provided with scientific knowledge (see Hood, 2009). As argued by Gelman and Legare (2011), it is evident that 'both scientific and nonscientific explanatory systems require considerable cultural experience and participation in dynamic aspects of the social-learning process, whereby children seek and actively construct information in collaboration with others (Callanan 2006)' (p. 390).

In sum, culture is considered to have a significant bearing on the naïve biology of young children. Current research about preschoolers' biological reasoning indicates the existence of cultural influences and specificities as well as cross-cultural universalities suggesting the need to explore this area further (Legare & Gelman, 2009; Zhu et al., 2009). Additionally, literature within the field of cognitive psychology suggests that differences in children's reasoning may be due to variations in the causal mechanisms learnt in various cultural communities (see Erickson, Keil, & Lockhart, 2010; Ross et al., 2003; Waxman & Medin, 2007). As explained by Erickson et al. (2010), 'young children may sense a key difference between broad domains but local cultures may guide them toward weighing different kinds of causal patterns as most essential' (p. 19). Some authors maintain that a naïve theories perspective is able to explain developmental and sociocultural differences in children's conceptualisation of illness causality (Sigelman, 2012). However, others contend that the theory account of children's understanding is too individualised and rigid, and ultimately fails to account for the ways in which knowledge is socially constructed (see Callanan & Valle, 2008; Nelson, Henseler, & Plesa, 2000). Such authors emphasise the importance of attending to the context of children's knowledge construction and recognising that children's thinking is inherently dynamic. Thus, current literature encourages researchers to consider the possible influence of various social contexts and cultural practices on children's intuitive theories (see Gelman & Legare, 2011).

2.5   Everyday understandings in everyday contexts

Researchers are increasingly attending to sociocultural aspects of children's learning and development, and have recently begun to explore the ways in which children's knowledge of health and illness is acquired in everyday contexts (see Reeve & Bell, 2009). Indeed, mounting challenges to Piagetian-based notions of conceptualisation and the emergence of the socio-constructivist perspective within the field of education have led to a keen interest in the ways in which children's active participation in sociocultural contexts (Rogoff, 2003), and in particular everyday contexts, influences young children's knowledge construction. The idea that children's thinking about health and illness is founded on their experience in everyday activities, is also highlighted within a conceptual ecology or knowledge systems perspective on children's meaning-making (see diSessa, 2002). However, studies of children's health and illness understandings in

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relation to everyday contexts largely feature children of an older age (e.g. Reeve & Bell, 2009) and neglect the meaning-making pursuits of preschoolers.

Young children's everyday meanings regarding health and illness remain absent from much of the medical sociology and health psychology literature despite evidence of four-year-olds' ability to share their thoughts about the causes of illness (Myant & Williams, 2005). A major contributing factor to this scenario is that previous studies (e.g. Buchanan-Burrow et al., 2004; Kalish, 1996) have predominantly sought young children's predictions or judgments regarding illness causality rather than their spontaneous explanations. In contrast, current research suggests that children's understanding of illness may be better illuminated by asking children for their spontaneous explanations of illness (Gelman, 2009). Additionally, on the few occasions when young children's explanations for illness have been sought, children's meanings have not been related to their particular family context. Conversely, while some researchers have recently begun to view children's biological understandings in relation to the practices of families and communities, studies have rarely focused on notions of illness (Zhu et al., 2009).

The importance of the home/family context for children's understandings has long been emphasised in disciplines such as sociology and anthropology but is yet to be fully embraced within many branches of psychology and medicine. Mayall (1993) argues that the very foundation of health knowledge lies in the relationships and activities of families. Exploring primary school-aged children's understandings of the division of healthcare labour, Mayall found that children themselves consider the home to be the main site for learning about health and health behaviours. Furthermore, Mayall's research demonstrates that children are 'active participators' in their learning about healthcare. The need to examine the particular ways in which families socialise their children into health beliefs and behaviours is highlighted in the literature (see Tinsley, 2003), and family meanings regarding health and illness are currently being explored across several disciplines. Within this literature, the way in which families draw on their respective cultural contexts in making sense of illness is emphasised (see Peterson, Sterling, & Stout, 2002). In a study exploring collective health narratives in families, Lindenmeyer, Griffiths, and Hodson (2011) highlight the presence of everyday communication about health and illness within families and provide examples of the

'health-promoting family' (Christensen, 2004) whose members encourage each other to adopt or maintain healthy lifestyles. However, few studies have explored the illness meanings of preschoolers or considered the ways in which young children's health and illness concepts are acquired within the family context.

Recent research indicates the importance of the family context for young children's understandings of health and illness even though children's families have not been included in the studies. Attention is drawn to the similarity between preschoolers' behaviour-based explanations for illness, and parents' conversations with their young children regarding ways to keep healthy (see Myant & Williams, 2005; Zhu et al., 2009). Thus, while the role of adult input is yet to be fully explored, children's causal explanations suggest that parent-child socialisation has a significant bearing on young children's understandings (Legare et al., 2009). Subsequently, the family context merits particular attention with regard to children's understandings of illness causality.

2.6 Importance of prior knowledge

Current literature suggests that children's learning of health information is likely to be greatly enhanced when practitioners appreciate the potential variability in children's understandings of health and illness as a result of their participation in particular sociocultural contexts. Practitioners are encouraged to build on each child's prior knowledge rather than implementing predetermined programmes that embody assumptions of children's thinking based on maturational models. Furthermore, it is argued that illness prevention programmes need to be oriented to children's causal understandings, not just the health information itself (Au, Romo, & DeWitt, 1999; Legare & Gelman, 2008). It is vital that practitioners base any information-giving to young children, including explanations of illness causality, on the existing knowledge of individual children (Rushforth, 2006) so that interventions can be tailored to children's personal needs. In best practice a partnership is formed between student and teacher, or patient and practitioner, in which both parties collaborate in the learning encounter and learn from the experience (Borzekowski, 2009).

From a naïve theories perspective, children are likely to have their own theories about illness causality and even when they are presented with scientific information about the

causes of illness children, like adults, do not necessarily let go of the 'misconceptions' that are embedded in their cultural contexts (see Sigelman, 2012). Studies of older children's understandings of health in relation to the family context stress the importance of assessing children's prior knowledge and considering the various ways in which such knowledge might be constructed via participation in family conversations, routines and activities (see Reeve & Bell, 2009). Practitioners are encouraged to firstly identify children's theories about the causes of illness, acknowledging the influence of sociocultural contexts on children's understandings, and from this platform create meaningful health education programmes that prompt children to reconsider folk beliefs that conflict with scientific explanations for illness (Sigelman, 2012). Any misconceptions that children may hold need to be corrected ahead of the delivery of health education programmes and support, and children's understandings need to be rechecked after an explanation has been provided in case any misconceptions have arisen at that point (Rushforth, 1999). As noted by Legare and Gelman (2008), 'providing scientific information does not necessarily eradicate or supplant non-scientific or erroneous beliefs (Carey, 2000)…educational programs must work to eradicate erroneous beliefs at the same time that they work to establish correct beliefs' (p. 640). Thus, practitioners working with young children in health and education settings are urged to take the time to identify children's existing knowledge regarding illness causality, consider the sociocultural contexts of children's understandings, and provide illness explanations that have relevance for children's lives.

2.7   Advancing research and practice

While contemporary research points to the importance of social contexts for children's understandings, the notion that children construct their understandings of the world as they participate in various sociocultural contexts has not necessarily been embraced by all sectors of the research community. In many respects the dominance of maturational models of children's understandings with regard to children's thinking about illness causality persists despite major criticisms of stage-oriented perspectives over the last 25 years. In 1989, Eiser (a prominent UK researcher in this area) argued in favour of an alternative to the stage approach emphasising the way in which maturational models make assumptions of children's cognitive immaturity and fail to acknowledge the role of experience and culture in children's thinking. Referring to marked diversity of

opinion with regard to the nature of children's illness causality conceptualisation, Eiser (1989) comments, 'while such controversy rages in developmental psychology, it really is very inappropriate that the model is applied almost exclusively and unquestioningly to research concerned with children's concepts of health and illness' (p. 96). Likewise, Crisp, Ungerer, and Goodnow (1996) argued for experiential factors to be acknowledged with regard to children's illness understanding as opposed to sole reliance on age/stage theories of development, and recommended the use of individual assessments for ascertaining children's understandings. Furthermore, research has shown that young children experiencing illnesses, e.g. diabetes, have high levels of understanding of their illness (Alderson, 2002; Alderson, 2006). Yet, of the plethora of studies focusing on young children's conceptualisation of illness causality, the vast majority feature cognitive development frameworks and fail to consider the sociocultural basis of children's understandings.

In turn, practitioners working with young children in the areas of health, education and social support are not necessarily appreciating the ways in which children's health and illness understandings are socially constructed.[1] To a large degree, paediatric texts are still dominated by cognitive frameworks that predict children's understanding at particular ages and make assumptions of young children's limited understanding and capacity (Turner, 2009). While some recent texts refer to the importance of recognising children's prior knowledge and correcting misunderstandings, little (if any) mention is made of the significance of children's sociocultural contexts for their meaning-making regarding the cause of illness. Again the focus is largely on introducing new material 'at appropriate stages of development' (Bastable, Gramet, Jacobs, & Sopczyk, 2011). Texts may suggest that practitioners involve parents in the relaying of information either about the child, or to the child, however, practitioners are seldom encouraged to learn about the specific beliefs and practices of individual families or to develop programmes in partnership with families so that the content and mode of delivery has particular meaning and relevance for individual children.

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[1] Even with the high visibility of sociocultural perspectives in contemporary early childhood education texts, some practitioners still have difficulty adopting a sociocultural approach to their work with young children due to the historical dominance of cognitive-developmentalism in the field (see Edwards, 2007).

At various points, researchers have referred to the potential utility of sociocultural theories of learning and development for deepening understanding of children's notions of illness (e.g. Holaday et al., 1994; Rushforth, 1996, 2006), however very few studies have pursued this line of thought. Holaday et al. (1994) are credited with being the first authors to view children's understandings of illness in Vygotskian terms (Rushforth, 1999). Contrary to Piagetian notions, Vygotsky (1978) argues that children can achieve greater understanding when instructed by a skilled helper. Some commentators maintain that taking a Vygotskian approach to children's understandings of illness causality finds middle ground between the theories of Piaget and Carey with regard to the nature/nurture debate, and as such, could prove very useful to the field (see Rushforth 1999).[2] Furthermore, Tinsley (2003) suggests that the relationship between cognitive development and health socialisation may be better understood from a Vygotskian perspective. However, despite these recommendations, research of children's illness understandings has largely neglected Vygotskian theory and failed to consider the impact of relationships and activities on children's understandings.

Across the literature, Piagetian-based theories are credited with enhancing understanding of childhood, and there is general agreement amongst commentators regarding the need to consider developmental issues when working with young children. A comprehensive collection of Piagetian-based research in the area of children's conceptualisation of illness causality has increased our knowledge of cognition, and provided some valuable insights into the impact of illness experience on children's understandings (Varkula, 2006). Consequently, practitioners are advised to keep developmental stages in mind when developing health education resources (Borzekowski, 2009). However, increasingly, research highlights young children's rich understandings and capabilities, and indicates that sociocultural factors make the developmental sequence much less predictable than maturational models propose. There is also significant criticism of the utility of maturational models across diverse populations. Thus, sole allegiance to developmental frameworks appears ill founded.

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[2] At this point it needs to be noted that, for some authors, Piagetian and Vygotskian perspectives are viewed as complementary rather than opposing forces, however the specifics of these theories and the way in which they are viewed in relation to each other are the subjects of intense debate for other commentators.

Having preconceived ideas of children's understandings based on maturational models also has profound implications for practice with young children both in research and applied settings. It is unlikely that researchers and practitioners will be able to accurately assess children's understandings of health and illness, and ultimately create health and education programmes that meet the needs of individual children, when children are considered to have little existing knowledge and limited capacity for understanding, and are provided with generic health education information without regard to children's diverse sociocultural contexts. By appreciating the relevance and value of sociocultural theory and other socio-constructivist perspectives of learning and development to the study of children's illness causality conceptualisation, research and practice in the field may be greatly enhanced.

2.8   Summary

For several decades, children's thinking about the causes of illness has been a popular topic of investigation, especially for researchers within the fields of cognitive and developmental psychology, and has created considerable controversy regarding children's cognitive abilities and the relative influence of maturational processes, and sociocultural relationships and activity. Until the mid 1980s, literature regarding young children's conceptualisation of illness causality reflected a significant bias towards maturational models of children's understandings that described a predictable and universal sequence of cognitive development and emphasised children's limited understanding and inevitable misconceptions. However, later studies revealed that children have a more sophisticated understanding of illness causality than previously held, and attention turned to children's capacity for understanding. Taking a functionalist orientation as opposed to a structuralist approach, newer theoretical perspectives recognised children's knowledge as domain-specific rather than domain-general, and emphasised the role of experience rather than processes of cognitive maturity in children's meaning-making about illness. Within this perspective, children are considered to be active theory-builders who construct intuitive or naïve theories of the world based on their experience in particular sociocultural contexts.

While interest in children's knowledge about the causes of illness has led to the publication of numerous studies and theoretical papers regarding the nature of young

children's understandings, the way in which children might construct their illness understandings as they engage in social contexts is yet to be fully explored. Furthermore, the vast majority of studies on this topic have sought children's predictions or judgments about the causes of illness and utilised laboratory-style experimental tasks generating quantitative data. As a result, children's own meanings about illness have largely been neglected and this is particularly the case for preschoolers. Consequently, there is currently a significant lack of qualitative data that highlights young children's spontaneous explanations for illness, and a striking absence of studies that locate young children's meanings about the causes of illness within particular social contexts. Furthermore, while the child's home is often considered the main site of children's learning about health and illness, the way in which children's participation in their family context impacts upon their everyday understandings of illness causality is largely unexplored.

Theoretical perspectives and research findings that acknowledge children's illness understandings as domain-specific, and significantly influenced by cultural and experiential factors, have been applied to practice in varying degrees. There is general acknowledgement within the literature regarding the need for practitioners to assess children's prior knowledge of illness causality before initiating health education interventions and making attempts to correct children's misconceptions (e.g. Bastable et al., 2011), however, few texts stress the importance of viewing the child in the context of their family with regard to meaning-making about illness. Despite the relevance of sociocultural theory to the work of practitioners in paediatric settings (see Turner, 2009), for the most part, paediatric texts continue to focus on maturational models of children's understanding and pay little or no attention to socio-constructivist perspectives of children's learning that highlight familial factors within children's meaning-making. Contemporary literature suggests that when young children are given the opportunity to provide their own meanings regarding illness causality, their explanations are likely to be significantly influenced by their participation in particular social contexts. Such findings signal the need to further explore the social construction of children's knowledge regarding the causes of illness, and place children and their families at the core of research and practice in this area.

Chapter Three – Methodology

(To) understand individual thinking one needs to understand the social and cultural-historical contexts in which it is used. Researchers cannot just look at individual thinking in a vacuum, as though individual thinking is separate from the kinds of activities in which people engage and the kinds of institutions of which they are a part.

Rogoff & Chavajay (1995, p. 866)

3.1   Introduction

This chapter outlines the methodological basis of the inquiry and provides the rationale for the methods used. As outlined in the previous chapter, research regarding young children's understandings of illness causality has largely focused on the nature of children's knowledge and utilised experimental methods that feature forced-choice responses and predetermined categories of responses (see Buchanan-Burrow et al., 2004; Williams & Binnie, 2002). In contrast, studies of children's meaning-making in relation to the family context have attended to the processes of children's knowledge acquisition and subsequently favoured qualitative methods such as interviews and ethnographic observations that help to uncover children's spontaneous views and provide valuable contextual data (see Reeve & Bell, 2009; Rudestam, Brown, Zarcadoolas, & Mansell, 2004). Seeking to access and explore young children's own explanations for illness, rather than their predictions or judgments, the present research draws on theoretical paradigms that acknowledge children's understandings as social constructs acquired via participation in sociocultural contexts.

The chapter begins with a description of the principal tenets of the socio-constructivist approach to learning which underpins the current study (section 3.2). In the following section, notions of 'the family' and meaning-making within the family context are provided with reference to the sociocultural, ecological and family systems theories that inform the current work (section 3.3). To further place the research methods in context, section 3.4 features an overview of narrative inquiry which highlights the ways in which narrative is both phenomenon and method, and provides the rationale for pursuing a narrative understanding of the topic. Subsequently, historical developments regarding

concepts of 'childhood' and the researching of young children's perspectives are charted as they have a significant impact on this study (sections 3.5 and 3.6). The chapter closes with a summary of the methodological foundations of the study (section 3.7).

3.2   Socio-constructivist framework

The current inquiry is located within a socio-constructivist framework which challenges modernist notions of truth and reality by maintaining that there can be no universal understanding de-contextualised from history and society in a socially-constructed world (Etherington, 2004). Development is always viewed as contextualised in terms of culture, setting and timeframe (Dahlberg, Moss, & Pence, 1999). Accordingly, learning is a collaborative construction of socially defined knowledge and values that occurs through socially-constructed opportunities within various cultural contexts (Vygotsky, 1978). In this way, learning and development occur via participation in social activities.

Contrary to Piagetian notions that development proceeds predictably according to children's maturity, socio-constructivist perspectives (such as advanced within sociocultural and ecological theories) view development as dependent upon engagement in cultural processes and contexts (Smith, 2002). Focusing on the child-in-context and emphasising the way children's social and cultural experiences guide thinking, Vygotskian perspectives view development as inextricably linked to mediated action via the use of symbolic tools (Hammack, 2008). As highlighted by Wood and Wood (2009), Vygotsky argues that culturally significant signs and symbols are central to all knowledge and practice. From this standpoint, development is considered to be a process of socialisation in cultural practices, with members of the cultural community learning via engagement in cultural activities and use of cultural tools such as language (Peterson, 2009; Rogoff, 2003). Such a notion of 'culture' embraces the shared understandings and practices developed by communities over time as members work towards achieving shared goals.

Sociocultural contexts have been increasingly recognised within education and there is now keen interest in the ways in which children's active participation in everyday environments influences young children's knowledge construction (see Rogoff, 2003).

According to Vygotsky, children are enculturated into the thinking of their cultural community via social interaction with more experienced others, for example parents, older siblings and other older family members (Carpendale & Lewis, 2004; Parker White, Bellamy, Creech Powell, & Wittenauer, 2011). It is this interactive, 'collaborative' (Mulvaney, 2010) nature of learning and development that forms a key principle of the sociocultural perspective. The child influences, and is influenced by, the views of others, and access to knowledge is mediated by cultural constraints (Bird & Podmore, 1990). Thus, development takes the form of a shared relationship involving the joint construction of knowledge (Smith, 2002). Likewise, within Bronfenbrenner's (1979) ecological theory, emphasis is placed on viewing children in context and focusing on the various relationships and roles within reciprocal activity. Thus, according to socio-constructivist approaches, children's engagement in activities and interchanges within their families and communities facilitates learning via mutual partnerships in which children construct meanings with others in their social world.

Sociocultural perspectives consider learning to be facilitated via conversation, social activity, and appropriate levels of assistance (see Smith, Duncan, & Marshall, 2005). Vygotsky (1978) refers to the concept of the Zone of Proximal Development (ZPD) to describe the distance between a child's ability when acting independently and their ability when working with the assistance of a skilled partner. Vygotsky argues that it is within the ZPD that a child's potential for new learning is maximised (Fabes & Martin, 2001). The process of 'guided participation' in cultural practices is another key element of sociocultural theory (see Rogoff, 1990; Vygotsky, 1978), and helps to explain the way in which a person who has expertise in a certain area may assist a person who is less skilled or knowledgeable in that particular area. As noted by Howe and Recchia (2009), guided participation involves: 'building bridges for the learner between known and unknown information, structuring and supporting the learner's attempts, and giving the learner responsibility for problem solving' (p. 176). In this way, children are apprenticed into the skills that are valued and practised by their communities (see Rogoff, 1995). Building on Vygotskian principles, Wood, Bruner, and Ross (1976) refer to a process of 'scaffolding' whereby children are assisted to achieve further understanding via graduated assistance from skilled helpers.

Within sociocultural theory the young child is viewed as an 'active sense maker' (Mayer, 2001) or 'meaning maker' (Wells, 1986), who actively constructs. Children do not passively take on board the meanings of others; rather they are active agents in the meaning-making process (Schiro, 2008). Children create their own meanings in collaboration with others as they strive to understand the world in which they live. Importantly, children participate in this learning process by gleaning information from perceptual cues, the actions of others, explicit assertions, implicit cues, observations and activities (Gelman, 2009), and by continually interpreting, evaluating and querying this knowledge. As outlined by Vygotsky (1986), children's initial 'everyday' or 'spontaneous' concepts develop into 'scientific' concepts as children engage in play and language (Hedges, Cullen, & Jordan, 2011).

In sum, socio-constructivist perspectives of children's learning and development argue that the processes of individual development, social interaction and cultural activity are inter-related (Rogoff, 1995). Children's meaning-making is viewed as a socially mediated process that is necessarily embedded in particular cultural practices and occurs via children's participation in informal, everyday activities and interactions with others in their social world. Consequently, socio-constructivist frameworks challenge normative assumptions by asking questions about learning in the context of everyday practices (Nasir, Rosebery, Warren, & Lee, 2006; Wells, 2008).

3.3 A focus on family

As the child's home is the primary social context for young children (Lam & Pollard, 2006), attention needs to be paid to everyday practices within families when seeking to explore the ways in which children construct their understandings of the world. Within the literature, various definitions of 'the family' are provided, and attention is drawn to the way in which families are inherently complex and dynamic both in structure and function (Kazak, 2008). Definitions of the make-up of the family group vary across sociocultural contexts (see Dreby & Adkins, 2012) and often extend beyond the nuclear family. In effect, each family is a unique and dynamic entity – 'a culture unto itself' (Bell et al., 2009). Furthermore, the notion of 'the family' is so complex historically, socially and culturally that there is now a move towards more expansive and flexible

understandings of the family, and a focus on family practices (and the meanings of these practices) rather than on the family unit per se (see Christensen, 2004).

Emphasis on the role of the familial context in children's development is a key element of many theoretical models of children's learning and well-being. As outlined in Bronfenbrenner's ecological model (1994), children's relationships with people at the microsystem level, such as family members, and the associated settings and resources, for example, the provision of food and play equipment within the family home have the most direct influence on development (Ravindran & Myers, 2011). Additionally, children's experience within the family context needs to be viewed in relation to more distal systems such as the local community, society at large, and ultimately historical timeframes as human development is the result of the interplay between both proximal and distal processes (Berry, Poortinga, Segall, & Dasen, 2002; Smith, Gollop, Taylor, & Marshall, 2004). Sociocultural perspectives also view children within the context of their families (see Goodnow, 1997) emphasising that children's learning and development emerges from children's engagement in social interactions, and highlighting the ways in which the wider social context impacts upon family experiences, beliefs and practices. As noted by Ravindran and Myers (2011), social and political agendas play a critical role in the belief systems of children and their families.

Likewise, family systems theory (see Von Bertalanffy, 1968) emphasises that human behaviour needs to be viewed beyond the level of the individual (Kazak, Simms, & Rourke, 2002), and highlights the inter-relationship between the family and society (Whitchurch & Constantine, 1993). Within this model the family is viewed as a system of people interacting in relationship with each other and with the outside environment. Change in one sector of the system has an impact on interactions in other areas of the system (Hemphill & Dearmun, 2006). Furthermore, family systems theories attend to the sociocultural characteristics of families (Yi, 2009), however, some authors argue that family systems perspectives fail to adequately account for variables such as culture, gender and family structure given the postmodern orientation towards socio-constructivism (see Goldenberg & Goldenberg, 2008).

Families affect children's learning via everyday interactions and activity (Hedges & Cullen, 2005). Drawing on a social practice perspective, Alexander, Miller, and Hengst

(2001) refer to family life as 'embedded in recurring activities that are mediated by particular discourses, …young children come to orient themselves within particular systems of meaning by participating in these everyday social practices' (p. 379). By determining 'mediational means' in the home setting (e.g. routines, activities and resources), parents transmit messages to young children (Lam & Pollard, 2006). Additionally, family members may intentionally or unintentionally either facilitate or inhibit children's access to resources (Alexander et al., 2001). Thus, in their meaning-making endeavours, children are frequently assisted by mediators within the family who serve to scaffold their learning. As well as parents and other adult family members, siblings also serve as powerful mediators of young children's learning. However, as noted by Howe, Brody, and Recchia (2006), studies of sibling teaching are not prolific in the literature despite the potential for research given siblings' history of co-constructed experience (see Dunn, 2002).

Mediational means also include beliefs about how children should be raised, and the values of family members. Consequently, children's meaning-making is influenced by everyday practices that convey family beliefs, values, attitudes and expectations. Each family has its own experiential base (Lam & Pollard, 2006) and particular 'funds of knowledge' (see Hedges et al., 2011). Moll, Amanti, Neff, and Gonzales (1992) define funds of knowledge as 'historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being' (p. 133). Language, values and beliefs have also been considered as funds of knowledge (see Riojas-Cortez, 2001). Consequently, children and their families possess diverse knowledge and experience (Hedges et al., 2011). Through engagement in activity and conversation with family members, children become apprenticed into the skills that are needed and valued within their families. Such interactions often take place within structured, yet fluid, patterns of relationships (see Rogoff, 1990) with family members participating in shared cultural activity with common goals. Furthermore, these interactions involve the particular practices and forms of mediation specific to individual families. Thus, the family context is critical to an understanding of young children's meaning-making pursuits.

3.4 Narrative inquiry

The primary cultural tool for understanding experience, knowledge and interactions in our social world is narrative (Bruner, 1986; Ochs & Capps, 2001). Consequently, narrative methodology endorses the notion that realities are created via language, and views narratives as meaning-making endeavours. From a young age we learn about our social world through narrative processes and are thus shaped by the stories which we share with others (see Bruner, 1990; Gilbert, 2002). In this way, the stories that people, including young children, tell reflect meanings and understandings of the wider society (Bailey & Tilley, 2002; Josselson, 2004).

Grounded in the interpretive tradition (Josselson, 2006), narrative inquiry views all forms of knowledge as social and historical constructions. *Knowledge* of the world is only gained via *experience* of the world (White, 1992), and this experience is inextricably positioned within a particular socio-historical context. Focusing on multiple experientially-based and socially-constructed realities, narrative research reflects postmodern thinking and broadens previous notions of objectivity and truth. Instead, we are prompted to query how we know what we know and illuminate such understandings as constructed and communicated via narrative. For it is through this fundamental and extremely powerful vehicle that we make sense of the world and attach meaning to our experience.

Having emerged as a necessary methodological response to positivist and post-positivist paradigms (Lieblich, Tuval-Mashiach, & Zilber, 1998), narrative inquiry seeks to understand experience in all of its complexity rather than being restricted to certain frameworks and categories (Phillion, He, & Connelly, 2005). In this regard, the methodology has been described as a philosophy (Gilbert, 2002) or a way of thinking (Carger, 2005) as much as a method per se. Narrative approaches to human experience are often founded on John Dewey's pragmatic philosophy (Clandinin, 2006). From this standpoint, narrative inquiry is primarily a way of conceptualising experience and thus narrative methodology necessarily acknowledges narrative as phenomenon (see Connelly & Clandinin, 2006). The challenge for narrative inquirers is to ensure that their research processes are kept open and fluid, so that the multifaceted nature of

human lives can be honoured, while still meeting the demands for rigor within research (Freeman, 2011; Tamboukou**,** 2011).

In-keeping with the complexities of the postmodern era, literature discussing narrative as a research method highlights diversity of opinion in terms of definition and process (Smith, 2007). Even the notion of equating 'narratives' with 'stories', while largely supported in the literature (e.g. Gilbert, 2002; Riessman, 2008), is challenged by some authors (e.g. Paley & Eva, 2005; van Oers, 2003). However, to varying extents, shared meanings can be found in terms of narrative methodology being an interpretive process (Josselson, 2006; Riessman, 2008) that involves both 'co-construction' (De Fina, 2009) or 'co-production' (Gunaratnam, 2009) of accounts and construction of texts for further analysis (Clandinin, 2006). With no manual outlining the one 'true' way to interpret storied experience, and a wealth of narrative approaches available, researchers must determine the most appropriate approach to answer their particular research question. Providing a clear rationale for the utilisation of a particular approach and being able to detail the analytical processes involved is an essential part of conducting any narrative inquiry.

From a narrative perspective young children, like all of us, make sense of the world (and themselves) through narrative processes (Bruner, 1990; Engel, 2006). Children are born into a world of storied experience and quickly develop the ability and enthusiasm to tell their own stories, relating events lived, anticipated and imagined. As noted by Bruner (1996), often it is problem scenarios that form the basis of storytelling**.** While humans are naturally inclined to storytelling, perhaps even driven to story (Gilbert, 2002), conversations with caregivers and participation in everyday activities help to further enculturate children into this narrative way of thinking (Bruner, 1990; Ochs & Capps, 2001). Continually making connections between their experience of the world and the experiences of others in their family and social network (Quintero, 2010), young children organise, interpret, and represent their understandings of the world in storied form. Thus, through the process of narrative, children develop a sense of self - an understanding of who they are and how they fit within the world (Holstein & Gubrium, 2002).

Narrative inquiry, or inquiry into narrative as similarly defined by Connelly and Clandinin (1990), recognises that the stories told within families on a daily basis serve as a vehicle for transmitting and reproducing family culture (Langellier & Peterson, 2004) as particular ways of viewing the world are shared amongst family members and passed on to the next generation. Through active participation in their 'community of practice' (Wenger, 1998), family members develop a sense of identity and the family develops a joint sense of self in relation to other communities of practice (Eckert & McConnell-Ginet, 1999). As individuals and families participate in multiple and diverse communities of practice, personal and familial narratives become increasingly complex. Narrative methodology necessarily honours this diversity and complexity of human experience (Josselson, 2006; Phillion et al., 2005) embracing the significance of context in people's lives. As such, a narrative approach has the ability to effectively highlight the ways in which young children's understandings are embedded within unique familial contexts.

In narrative research, participants can be heard in their own words, even though the actions and positioning of the researcher necessarily influences these words (see Gilbert, 2002). This is particularly significant in the case of young children whose voices had largely been missing from research prior to the emergence of the 'new sociology of childhood' viewing children as active agents in their own social lives (James & Prout, 1997). Narrative methodology acknowledges young children's active participation in their social worlds and seeks to understand and affirm children's meaning-making endeavours. As advocated by Carter (2004), children have the right to tell of their experience. However, young children are often denied opportunities to share their stories because their narratives do not follow traditional formats (see Nicolopoulou, 2008). In this dismissing of children's narratives due to their disjointed nature and substantial complexity, researchers fail to appreciate the richness of children's experience as expressed via narrative. By recognising children's various ways of communicating their experience, which may include mediums such as play, art, action (or non-action), and emotional expression; focusing on the storytelling process; and devising creative ways to analyse such narratives, researchers can work towards exploring children's perspectives of the world (Puroila, Estola, & Syrjala, 2012). Ultimately, narrative inquirers have both the opportunity and the responsibility to listen

carefully to the meanings of others, in effect to listen *with* others – including young children.

3.5   Notions of childhood

Conceptions of childhood have a major bearing on the way in which research with young children is viewed and conducted. Assumptions are made regarding both children and childhood (Fasoli, 2011) and such assumptions are likely to be based on dominant discourses related to human development (see Peters & Kelly, 2011). Developing a method for eliciting young children's narrative accounts of illness causality reflects changes in the field of early childhood over the last two decades. Along with an increased understanding of the socio-constructivist theories of Vygotsky (Stephenson, 2009) and the social dimensions of learning and development, there has been greater emphasis on finding appropriate and effective ways to elicit children's views (Darbyshire et al., 2005). Such a shift has been influenced by the advent of the 'new sociology of childhood' which views the child as competent and active with the right to be heard (Greene & Hill, 2005), and legal endorsements of a child's right to express his or her view (e.g. United Nations General Assembly, 1989). Another major contributor to this movement has been the Reggio Emilia approach to early childhood education which encourages young children to express themselves in 'the hundred languages of children' (Edwards, Gandini, & Forman, 1998).

Historically, research with children has largely been guided by developmental psychology and its emphasis on stages of childhood aligned with particular ages and abilities (Kehily, 2011). Within this paradigm, children have generally been considered as the objects of research (see Greene & Hill, 2005) as opposed to valued contributors to the research process. Children have frequently been viewed as incompetent and their personal views have been either ignored or considered unreliable (Alderson, 2000; Scratchley, 2004). Consequently, children's ideas and opinions are largely absent from research and decision-making forums (Puroila et al., 2012). Instead, research studies have often focused on the voices of parents and other adult perspectives of children's experience (Alderson, 1995; Woodgate, 2001). Commentators suggest that the absence of children's voices in research may be due to children's minority status or an adult

view that children are either unable or unwilling to participate, or need protecting from involvement in such enterprises (Hart & Chesson, 1998).

Whereas traditional developmental approaches have positioned children as people 'becoming' as opposed to 'being' (Dalli & Stephenson, 2010), sociological approaches consider young children as citizens in their own right. Within this newer paradigm, childhood is viewed as a social construction (see James & Prout, 1997) and children themselves are perceived as active and competent participators in their social worlds (see Mayall, 2002). Researchers are now urged to explore children's views, relationships and cultures. Thus, within the research domain – at least in the fields of education and social practice - there has been a significant shift away from viewing children as incompetent and vulnerable, towards an image of children as capable citizens who influence their social worlds (Dalli & Stephenson, 2010).

Advances in the children's rights movement, and associated legislative and policy changes across the globe, have contributed to awareness of the need to listen to young children's perspectives and engage with children as partners in research. As stated in Article 13 of the United Nations Convention on the Rights of the Child (United Nations General Assembly, 1989), children have the right to freedom of expression, including the freedom to seek, receive and impart information and ideas. Subsequently, there has been a concerted drive towards hearing children's voices. An example of this agenda is evident in an Australian government department publication (Commission for Children and Young People, 2005) which urges researchers to base their work on the following tenets: children are the most knowledgeable about their lives; power is shared through collaboration between adults and children; research processes adapt to, and are respectful of, children's communication styles; and research processes are flexible and easy to understand (pp. 9–11).

Research has shown that children are very capable of sharing their experiences (Christensen & James, 2000), and that adults are likely to gain greater insight into children's worlds, concerns and issues when children's voices are listened to and understood (Smith, Taylor, & Gollop, 2000). Furthermore, however well-meaning they might be, adults cannot be assumed to give authentic accounts of the child's world (Hart

& Chesson, 1998). As James (1999) notes, children and parents provide insights which are different but equally valid. Working within this model of childhood, parents' views remain important but sit alongside, rather than in front of or in place of, children's perspectives. Additionally, undertaking research with young children presents particular challenges and may require very different approaches to those utilised with older participants (Freeman & Mathison, 2009). Indeed, it is researchers' ability to facilitate children's sharing of their respective worldviews, more than children's cognitive competencies, that determines children's participation in research (Grace & Bowes, 2011).

Many researchers are now utilising creative methods for eliciting children's perspectives (e.g. Clark, 2007; Fasoli, 2001; Schiller & Einarsdottir, 2009), however, in seeking ways to encourage young children to voice their outlook on the world, researchers need to be wary of adopting a universalistic and 'Westernised' concept of participation (see Maybin & Woodhead, 2003). Instead, researchers are advised to set research agendas that are meaningful to children and their communities (see Robbins, 2005). Attention is also drawn to difficulties that may be experienced when attempting to honour both children's participation rights and the beliefs of the family or community regarding such rights. Dalli and Stephenson (2010) highlight this dilemma noting that participation rights may be considered the domain of families and communities rather than the domain of individuals. Researchers need to remember that children's participation in research is ultimately and essentially concerned with adult-child relations, and the contexts of these relationships (Mannion, 2007).

3.6   Research with young children

In recent years a variety of methods have been utilised in research with young children including many child-centred methods specifically designed to elicit young children's perspectives (Dockett & Perry, 2007). Child-centred methods have been developed to complement traditional interviewing on the basis that a task-centred approach is more appropriate for children's skills and helps to facilitate children's engagement in the research process. Researchers have used media such as puppets, toys, role-play, drawing and photographs in an attempt to 'scaffold' children's sharing of their stories (Grace & Bowes, 2011). Such methods have often proven effective in creating an interview

context that has meaning for children and stimulates dialogue between the child and the researcher (see Brooker, 2001; Dockett & Perry, 2003).

While there is some comment within the literature that the creation of special 'child-friendly' methods conflicts with the new sociology of childhood in terms of children's competence and serves to position children as 'other' in the research process (Punch, 2002), there is general acknowledgement of the value of child-centred approaches and the use of multi-method, rather than single method, designs (see Einarsdottir, 2007). Recently the multi-method 'mosaic approach' (see Clark, 2005, 2007; Clark & Moss, 2001) has been utilised as a way of hearing, and acting upon, children's views. The mosaic approach employs traditional research methods such as observation and interviews alongside participatory tools for children such as map-making, taking photographs, and giving tours of familiar settings (Clark, 2007). Children's participation in both the gathering and review of data is a key feature of this approach.

Several researchers have demonstrated that photographs can serve as a useful conversational aid in interviews with young children providing an external cue to facilitate children's sharing of narrative accounts. Mauthner (1997) recommends the use of familiar activities such as looking at photographs when interviewing young children especially when the topic is more abstract than concrete. Weinger (2000) observes that placing attention on the photographs, rather than on the children themselves, enables children to express their ideas and feelings more freely. Other researchers have utilised photographs effectively with young children: Stephenson (2009) utilised photographs of an early childhood education centre, including children's own photographs of the centre; Smith et al. (2005) used photographs of four-year-old participants as prompts in exploring the children's thoughts about their learning experiences; and Einarsdottir (2007) found that photographs of child participants in the early childhood setting stimulated discussion among young children.

Stories themselves have proven to be another effective medium for eliciting young children's narratives. Focusing on children's perspectives of their learning, especially with regard to their approach to coping with difficulty, Carr (2000) utilised an unfinished storybook in her interviews with four-year-old children. Having adapted the book to include content that played back participant children's activities in the early

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childhood centre, Carr asked the children to finish the story using one of five possible endings. Another example of a method incorporating the use of stories is found in Ceglowski and Bacigalupa's (2007) study in which researchers read a short story to children and then asked the children to tell a similar story about their favourite activities in the early childhood centre. In a subsequent interview, researchers asked the children to describe the environment to an imaginary child who was about to attend the same early childhood centre. Additionally, Dockett and Perry (2005) combined the use of children's photographs and stories effectively in a photo-essay project which involved children taking photographs of their school and then compiling the photographs, and accompanying text, into a resource book for children who were new to the school.

In seeking to elicit children's perspectives it is important for researchers to ensure that their methods truly encourage children's participation in research. Along with the research tools themselves, it is the researcher's relationship with children as collaborators in the research process which is the key to effective research (see Waller & Bitou, 2011). Authors refer to the skill and time required to achieve such relationships with young children (see Peters & Kelly, 2011), and the importance of attending to issues of ethics and power (see Fasoli, 2001). Ultimately, researcher assumptions of children's competencies influence the level of children's participation in research and the nature of the processes offered to children for sharing their views (see Clark, 2005). Noting the dilemma faced when attempting to simultaneously listen to children and undertake assessments (see Carr, Jones, & Lee, 2005), Waller and Bitou (2011) ask whether the task of simultaneously listening to children and undertaking research might also be impossible. Furthermore, throughout all phases of the research process, researchers need to exercise reflexivity regarding their possible misrepresentation of children's meanings due to the power of particular discourses (Peters & Kelly, 2011). As highlighted by Pascal and Bertram (2009), 'supporting and catching children's voices is complex, challenging and multi-layered involving a profound paradigm shift in the values, actions and thinking of researchers and practitioners' (p. 260).

3.7 Summary

The current study adopts a socio-constructivist perspective of children's learning and development which views all knowledge as social constructions. Such an orientation attends to children's knowledge acquisition via active participation in sociocultural activity (Rogoff, 2003), and encourages researchers to utilise qualitative methodologies to gather rich data across a variety of settings (Woodgate, 2001). Increasingly, researchers are viewing young children's knowledge in terms of the child's sociocultural context recognising that context is an essential component of meaning and critical when exploring children's multiple and changing realities. As a child's home provides the initial context for young children's understandings of the world (Lam & Pollard, 2006), the present inquiry seeks to explore young children's understandings of illness causality in relation to the family context.

In contrast to historical conceptions of childhood, there is now acknowledgement within the early childhood research community regarding the importance of seeking children's perspectives (see Clark, 2007; Dockett, Einarsdottir, & Perry, 2009; Stephenson, 2009). This development can be traced to a paradigm shift away from notions of young children as incompetent and inappropriate research participants, and towards children as active collaborators in research that seeks to both listen and respond to children's needs, interests and concerns. Furthermore, the recent emphasis on hearing children's voices can be linked to social and political agendas (Peters & Kelly, 2011) including developments related to children's right to express their views e.g. the United Nations Convention on the Rights of the Child (United Nations General Assembly, 1989). As a result of this prioritising, researchers within the fields of education and social practice currently tend to favour child-centred methods that help to elicit young children's views of the world.

The natural means by which children make sense of their world and communicate this understanding to others is via narrative (see Nelson, 2007). Indeed, stories about themselves and others are the first tools available to young children for understanding and sharing their experience of the world and these narratives provide insights into specific cultural rules and meanings (Bruner, 1990; Langellier & Peterson, 2004). In particular, everyday conversations between children and their family members socialise

children into a narrative mode of thought. As noted by Callanan and Jipson (2001), parent–child explanations about science topics tend to involve narratives of specific experiences, rather than scientific tenets. Consequently, a narrative approach to the study of young children's understandings serves to highlight the meaning-making endeavours of young children (as co-constructed and expressed through the familiar process of narrative), and locate such understandings within the context of the family while acknowledging that the family is located within broader sociocultural contexts.[3]

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[3] The following three chapters have been published in briefer versions (see Appendix 1).

Chapter Four – Method

4.1   Introduction

Taking a qualitative approach to preschool children's understandings raises some methodological issues around the eliciting of responses that include the child's everyday understandings of illness and reflect the influence of their family environment. This chapter describes the narrative research methods that were developed and utilised to deal with such issues while addressing the following research question: How are young children's illness causality concepts embedded within the sociocultural context of the family? Four-year-old children were selected as the core unit of study in response to the absence of preschoolers' views from psychological literature, and evidence of four-year-olds' ability to express their thoughts (see Myant & Williams, 2005). In regard to the interviews with these four-year-old participants, there were three central issues that needed to be considered. First, the constructivist epistemology called for children to be allowed to freely communicate their own views of illness rather than restricting children's responses to predetermined categories or frameworks. Second, a narrative methodology required the elicitation of stories. Third, the study required an approach that was appropriate for the children's developmental level and allowed for the fact that 'health' and 'illness' are relatively abstract concepts for young children (Reeve & Bell, 2009). My solution was to invite the four-year-old participants to construct a storybook about 'getting sick' using photographs and art materials during the interview process.

In this chapter I describe the storybook method along with the research procedures involving selected family members that provided valuable contextual information for this study. The chapter begins with demographic details of the participants and the research setting (section 4.2). Subsequently, data collection methods are outlined (section 4.3). This section includes details of the recruitment and consent processes, the development of resource materials, interview procedures, and the storybook process for eliciting children's narratives of illness causality. An evaluation of the storybook method follows in section 4.4. Section 4.5 features reflections on the methods, particularly focusing on critical aspects of researcher engagement with young children and their families, and is followed by a summary of the key points highlighted within the chapter (section 4.6).

4.2   Participants

Study participants were recruited via liaison with teaching staff at a public kindergarten in a large metropolitan region of New Zealand. Participants included five four-year-old children attending the kindergarten and the following members of each child's family: parent/guardian, sibling/s attending primary school (aged five to nine years), and two other family members sharing a close relationship with the four-year-old child, for example, other parent/guardian, older sibling, aunt/uncle, grandparent or older family member (see Table 1). All of the siblings in the study had previously attended the same kindergarten and teaching staff had existing relationships with these children and their families. Eleven children (6 males and 5 females) and eighteen adults (7 males and 11 females) participated in the study. The age range of participant children was 4.3 years-9.6 years; the age range of participant adults was 24-72 years.

The kindergarten was located in a low socio-economic area registering in the 8th decile of deprivation (Crampton, Salmond, & Kirkpatrick, 2004) and was chosen because of the diversity of families in the kindergarten community. Participants were active in the following cultural communities: Pasifika, Pakeha/European, Indian, South-American, and Eastern European communities. Religious affiliations of the participants were as follows: Catholic, Mormon, Muslim, Hindu and agnostic. Family members were participating in multiple communities with several examples of parents and grandparents affiliating with different cultural communities and/or different religious communities to each other but participating in each other's networks. In three of the families two languages were spoken in the home and, in another family, three languages were spoken in the home. In three of the families one set of grandparents lived in either the participant child's home or the neighbouring house at the time of the study and in the majority of families other extended family had previously lived in the home.

Participants had varying experience of illness and medical care. Child participants had experienced illnesses such as colds, flu, headaches, ear ache, chicken pox, and broken bones. Two of the child participants were receiving medical care for asthma, allergies and eczema. One of the children in the study had been diagnosed with attention deficit disorder and another with Asperger syndrome. Most of the child participants had received care in a hospital emergency department and/or been admitted as an inpatient.

Table 1 – Participant details

Child[1]	Age (in years)	Gender	Family members living in the same household or on the same property	Cultural and religious communities	Illness experience[2]
Emmi	4.9	Female	Parents, older brother, younger sister, paternal grandparents	Indian, Hindu	Coughs/colds
Jasmine	4.6	Female	Parents, older sister, younger sister	South American, Mormon	Coughs/colds, sore cheeks, chicken pox
Joseph	4.7	Male	Parents, older brother, maternal grandparents	Indian, Muslim, Hindu	Coughs/colds, flu, eczema, broken arm
Natalia	4.11	Female	Parents, two older brothers	NZ/European	Coughs/colds, ear infections, throat infections, head injury
Ruby	4.3	Female	Parents, older brother, younger sister, paternal grandparents	Pasifika, Eastern European, Muslim, Catholic	Coughs/colds, flu, fractured wrist

[1] All names are pseudonyms.

[2] Four-year-old child's experience of illness as defined and reported by parents. Health status was not part of the selection criteria.

Adult participants were receiving (or had recently received) medical care for conditions such as diabetes, asthma, allergies, skin conditions, bone deformity, gall stones, loss of limb, and nerve damage.

4.3   Data collection

I collected data over a six-week period. Prior to beginning data collection I visited the kindergarten on several occasions to establish relationships with children, families and teaching staff. The primary method of gathering data involved in-depth interviewing of all study participants with the aid of a semi-structured interview schedule (see Appendix 5). Interviews with all of the child participants incorporated an optional storybook process during which children were invited to construct their own storybook about 'getting sick'. Having obtained children's permission, additional data was obtained via family members' feedback regarding children's storybooks. Participants' comments during subsequent home visits, particularly when reviewing their transcripts[4], was also included in the data set. Data was gathered in the form of field-notes, audiotapes, and storybooks. All of the interviews were recorded on a digital voice recorder. Following each interview additional notes were made especially with regard to participants' body language. Translation and interpreter services were available to participants but not utilised.

Materials

A photographic resource was used as a conversational aid in the interviews with children. Three familiarisation photographs and eleven topic photographs were utilised so that children could exercise choice without being overwhelmed by the number of photographs. Familiarisation photographs depicted groups of children at kindergarten and at school. The majority of topic photographs featured children experiencing illness in an unspecified context to allow for breadth of participant responses. Photographs portrayed children engaged in a range of actions such as holding their head in their hands, wincing while holding their arms across their body, sneezing, and coughing. Each topic photograph featured one child alone in order to present a more open-ended scenario and focus children's attention. All of the photographs were sourced from children's non-fiction books. Photographs featured young children of various ethnic backgrounds and reflected the cultural communities in the local area. The photographs were in colour so that they provided a vivid medium for children, and were laminated to make them more appealing and more durable across many interviews. To create further interest the photographs were of varying shapes and sizes. The topic photographs were

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[4] Participants gave authority for the release of their transcripts (see Appendix 6 for the authority form).

smaller than the familiarisation photographs with the largest photograph measuring 3.9 inches x 5.5 inches. The size of the topic photographs created the opportunity for children to hold the photographs in their hands and subsequently lay the photographs out on a table or floor. Unfortunately, the photographs are unable to be reproduced here due to copyright issues (see chapter 8, section 9).

Consent process

After obtaining permission from kindergarten management (see Appendices 7 and 8), I liaised with the teaching team at the kindergarten to identify potential participants (see Appendices 9-11). An invitation to participate in the study was initially made by the head teacher to parents/guardians accompanied by a written letter from myself (see Appendix 12). After having had time to consider the invitation, parents/guardians advised the head teacher as to whether or not they wished to participate in the study. The head teacher then informed me of the names of interested participants. Subsequently I personally introduced myself to interested family members and provided the relevant information sheets and consent forms (see Appendices 13 and 14) along with verbal explanations.

Consent for children to participate in the project was obtained from each child's parent/guardian (see Appendix 15) before seeking children's assent. I provided children with clear explanations about the nature of the study and outlined their rights as participants. As recommended by Ford, Sankey, and Crisp (2007), I had designed a simplified form specifically for children (see Appendix 16) so that the process could be more inclusive and child-centred, and I read through this form with each child. In order to make the form more reflective of a child's world I had placed a picture of a teddy bear next to the space where children could sign their name, or make their mark, thus signifying their agreement to participate in the study. Throughout the interview process I continued to seek children's assent respecting both verbal and non-verbal cues indicating that children wished to have a break from the interview or end their involvement.

Interviews

As recommended by Munford and Sanders (2000), interviews with parents/guardians of participant children took place in advance of the interviews with children. Information

was gathered regarding the children's experience of illness, exposure to illness of others and any potentially sensitive issues that the interview process might trigger for individual children, for example, recent death of a relative. Parents/guardians were shown the photographic resource so that they would be aware of the nature of the material that would be shown to their children. The adults were then interviewed regarding their own views of illness.

Interviews with four-year-old children were undertaken in the kindergarten setting with visibility to teaching staff and interviews with older children were undertaken in the child's home with the child's parent/guardian on site. Conducting interviews in a setting that is comfortable and familiar to children is widely supported (Dockett & Perry, 2007; Woodgate, 2001). I interviewed the four-year-olds in the kindergarten office as this location was preferred by the teaching team, popular with the children, and also appropriate due to reduced noise levels, less distractions, and effective use of space. Interview duration ranged from 30-60 minutes.

Children were interviewed individually to elicit each child's individual thoughts rather than constructions generated during a group interview or child conferencing. Individual interviews with young children are often more successful than group interviews in terms of eliciting individual responses (Einarsdottir, 2007). As Clark (2005) notes, children who are less articulate or outgoing might not have the confidence to contribute in a group setting. However, I was also aware that interviewing a child alone is not always appropriate for some children, families or cultural groups (Gollop, 2000). To avoid children's pre-exposure to the storybooks of other participants, siblings were interviewed at a similar time and storybooks were returned to children after all of the interviews had been conducted.

Storybook process

I began the storybook interviews by showing children the familiarisation photographs one at a time and asking children open-ended questions about what they thought was happening in each picture. I then explained that I was interested in finding out what children thought about 'how people get sick sometimes' and that I was asking children if they would like to make a storybook to help me with my research. Children were informed that they would be able to keep their book and, with their permission, I would

make a copy for my research. As highlighted by Dockett and Perry (2007), artifacts produced by children during the course of research must remain the property of the children concerned and it must be the children themselves who decide whether or not to make the material available to the researcher.

After showing children a series of topic photographs and explaining that the photographs could be used in the book, I invited children to lay the photographic cards out on their workspace and explained that all of the children in the photographs 'weren't feeling very well'. Beginning the storybook process in this manner prompted children to talk about the illnesses that they, and their family members, had experienced and I engaged in open-ended questioning to elicit further information and thoughts regarding the causes of illness. Having allowed sufficient time for children to view the photographs, I encouraged children to select a photograph for each story in their book and asked an opening question such as 'What do you think is happening in this picture?'

Children were offered as much choice as possible in terms of art materials and level of participation. As well as choosing the photographs and determining their sequencing in the book, children arranged and affixed the photographs on the various pages, and decided whether to write the stories themselves or dictate the stories for me to write down. Most of the younger children chose to do some of the writing themselves, for example, writing their name and age on the title page and adding page numbers throughout the book. The majority of children constructed five or six stories for their storybook.

I endeavoured to listen carefully to children's stories, acknowledge all contributions, and utilise communication strategies to draw out more storytelling. Strategies included: reflecting children's comments; adopting children's phrasing during questioning, for example, 'How come he "got the cough"?'; recapping stories; and checking content. I was also mindful of the necessity of attending to children's body language and recognising cultural aspects of communication (Sauvao, Mapa, & Podmore, 2000). Children were able to do as much or as little of the process as they wished.

4.4 Working in relationship

Reflecting on the methods utilised in this study, I am acutely aware of the importance of 'relationship' to the sharing of narrative accounts and the need to acknowledge key aspects of my engagement with both participants and the wider kindergarten community. While relationship is a significant factor of all qualitative research (see Munford & Sanders, 2000), it is particularly critical to narrative inquiry (Barrett & Stauffer, 2009). As a researcher exploring narrative understandings I am necessarily situated *in* the inquiry, in collaborative relationship with others (see Pinnegar & Daynes, 2007); I am not sitting alongside the inquiry objectively gathering data. In this section I reflect on some of the key aspects of my relational encounters within the research context; aspects which, in my view, significantly influenced participants' readiness to tell their stories.

In the first instance, the fostering of relationships with the kindergarten community at large appeared to help create an environment conducive to the sharing of narrative accounts. I had previously worked at the kindergarten as an early childhood teacher and had enjoyed positive professional relationships with members of the current teaching team and kindergarten management. Thus, from the very beginning of the research relationship I had several points of connection with the kindergarten community in terms of history and existing relationships with members of the teaching team, familiarity with the kindergarten environment, familiarity with the community and the geography of the area, and a shared focus on young children and families. While I was a stranger to current families in the kindergarten, existing networks helped to create a sense of belonging in the kindergarten community and engendered support for the research. However, having these pre-existing connections within the research setting meant that I needed to take extra care in explaining my current role and the purpose of the inquiry.

Introducing myself to families in the kindergarten and sharing details of both my personal and professional background, helped to establish relationships within the research context. While it could be argued that such sharing could unduly impact upon the inquiry, I felt that it was important that families knew some of my background in order to develop trust, create rapport, give something of myself to the relationship as a

form of reciprocity, and ultimately provide a safe environment for the sharing of stories. To further the establishment of relationships in the research setting, I spent time in the kindergarten ahead of the fieldwork interacting with families and developing working relationships with the broader kindergarten community. Throughout this period I was continually introducing myself to new people and answering questions about the study mindful that the way in which I introduced myself, my role and my research would have a significant bearing on the process.

Another key element of relationship in the research setting concerned the allocation of time and the importance of flexibility regarding timeframes. Establishing and maintaining a collaborative research relationship with management, teaching staff and families required considerable time especially when negotiating and re-negotiating access and consent. As highlighted by Munford and Sanders (2000), managing the multifaceted relationships that accompany this type of research requires a substantial investment of time on the part of the researcher. I also needed to adapt timeframes as situations arose, for example, when family members were unwell or needed to attend family gatherings elsewhere. My availability to participants throughout fieldwork, and not just during prearranged interviews, also assisted in the development of collaborative relationships and the sharing of stories. Narratives were not restricted to set times. On several occasions participants initiated conversations outside of the formal interview process having recalled or experienced an event since we last spoke that was directly related to the topic. Allowing plenty of time for each and every aspect of fieldwork, and adapting to the situation at hand, was a crucial aspect of the inquiry.

Time was also a major factor in the interview context itself with the need to allow time for stories to unfold naturally. Narrative researchers refer to the importance of respectful and empathetic relationships within narrative inquiry (Josselson, 2011), and the time required to develop an atmosphere in which both the researcher and participants feel comfortable (Moen, 2006). Additionally, I needed to be aware of the 'messy' way in which stories can unfold and remember that the narrator might need to tell certain stories ahead of other stories thus requiring extra time. Factoring in time for a break in the sharing of stories, especially in the case of interviews with children and in busy households, was another important part of the relational encounter. It was also

imperative that I appreciated the time that might be needed for participants to feel safe enough to share particularly sensitive or emotionally-charged stories.

Acknowledgement of the emotional nature of some stories was a significant aspect of relational encounters within the research context. I was surprised by the sensitivity of the topic for some family members and suspect that, in at least one case, the emotional aspect of some stories created barriers to interviewing other family members due to participants' concerns that the process would bring to the fore a very emotional issue that had caused a great deal of friction and ill feeling in the family. Participants sharing the 'forbidden' featured strongly during this narrative process and some participants needed further reassurance that the stories they were sharing would not be made known to other members of the family. The importance of seeking consent/assent at the end of the process as well as at the beginning of the relationship was further highlighted in these circumstances (see Josselson, 2007).

Respect for participants' stories, regardless of shape and form, was vital for the preservation of the collaborative relationship and the eliciting of narrative data. I needed to convey to participants that I wanted to hear *their* story, *their* thoughts. They owned the stories – there were no 'right' or 'wrong' answers. Careful listening and documenting of stories (and in some cases allocating time for children to document the stories themselves) further promoted relationship and the sharing of narratives.

Working in relationship, it was important to continually adapt procedures so that participants felt comfortable. Another example of the need for flexibility involved family members' preferences for being interviewed individually or in a group. An individual might feel more able to speak freely on his or her own or, conversely, feel more supported when speaking in a group. In the case of group interviews, following multiple storylines was a challenge but ultimately extremely valuable to the process in terms of the type of collaborative storytelling that emerged in the group setting.

Undertaking narrative inquiry in both the kindergarten and the family homes further assisted with the building and maintaining of relationships, and consequently the sharing of stories. In some cases I visited a child's home three times - once to interview family members, then to return children's books/ask for feedback regarding the content

of books/give gifts, and finally to go over the transcripts asking for feedback and clarification. Visits to the kindergarten and family homes often involved the sharing of food which I believe further facilitated the development of relationship and storytelling. This 'coming together around food' helped to make the process less formal and more like a chat. However, I am aware that my role as a guest of the family created a situational identity (De Fina, 2011) that also influenced the inquiry. This notion of relationship and identity is expanded in the following chapter with regard to the interpretation of narrative accounts (see chapter 5, section 4).

Each of the factors described in this reflective section significantly affected relationships within the research context and consequently participants' readiness to share their accounts. In this way, the notion and process of relationship had a major impact on the research method as a means of eliciting participants' narratives of illness causality and ultimately assisted in meeting the aims of the research.

4.5   Evaluation

I found that the storybook method was effective in two broad ways. First, combining interviewing with the optional task-based method of creating a storybook using photographs and art materials facilitated children's engagement and helped to make the process familiar and meaningful for young children. Children's immediate interest in the photographs helped to focus children's attention on the topic and facilitated discussion. The storybook process was appropriate for the age range of the child participants as children could make choices regarding their level and form of participation and work at their own pace. All of the children appeared to enjoy creating their own storybooks and having their stories recorded on the digital voice recorder. Furthermore, the children seemed particularly proud of their books. I observed children showing their books to family members and teachers, and also observed siblings reading their books to each other and taking note of which photographs they had each used. On subsequent occasions children spontaneously brought their books out to show me and each other.

The second way in which I found this method to be effective was in eliciting young children's accounts. Children's narrative accounts whilst creating their storybook, along

with the stories themselves, generated a wealth of data. Consequently, talking whilst engaged in activity appears to be a useful approach to eliciting young children's narratives. The research process as a whole resulted in a rich data set with a great deal of relevant information for analysis. In particular, given the background and research questions of the present study, the method was useful for gathering information pertinent to the child's familial context. Reflections on the research method highlighted the value of incorporating a storybook approach for eliciting young children's narrative accounts. However, I also identified issues for consideration in future research with young children and their families.

During the storybook interview process I needed to address some of the challenges inherent in research with young children such as issues of timing and language (Gollop, 2000). Undertaking negotiations with each child regarding a suitable time for his or her interview, and avoiding interviewing children when they might be tired, hungry, or otherwise distracted, were important aspects of the process. Appreciating the value of offering children a variety of methods (Einarsdottir, 2007), I had originally planned to include an optional drawing task in the interviews but soon discovered that I could not expect children to focus any longer than the duration of the storybook process. Although the popularity and effectiveness of the storybook process exceeded my original plans, eliciting drawings of illness causality on a separate occasion might be a useful modification to the process, especially with older children.

Attention to language was a critical element of the process. During the interviews I reflected children's words and phrasing to both preserve children's authentic voice and facilitate communication via the use of familiar language and speech patterns. I was also alert to the possibility that use of terms and phrases such as 'these children don't feel very well, they're all feeling a bit sick' could unduly pre-empt children's stories of vomiting but this did not occur. Additionally, I quickly discovered that I was able to elicit greater detail regarding children's accounts of illness causality by continuing to ask open-ended questions, for example, when a child commented that the character needed to 'tell their Mum/Dad/teacher', it was useful for me to ask 'and what does (he/she) say to their Mum/Dad/teacher?'

Although photographs served as a useful medium for eliciting children's narrative accounts, future data collection could benefit from further modifications to some of the photographic resources and aspects of the process. Future research could include photographs of adults who are unwell, including older adults such as grandparent figures, to elicit children's thinking regarding adults experiencing illness. Two of the photographs could be improved. Some children thought that one photograph showed a boy eating an ice-cream when he was actually holding a tissue, and a photograph of a smiling girl with spots was also problematic because some children commented that the girl was not ill because she was smiling. Nevertheless, these outcomes were significant in their own right and many of the children decided to use these two photographs in their books and explain how the character 'got sick'.

In-depth interviews and follow-up communication with family members provided detailed information regarding the illness causality constructions within the young child's familial context and the social processes involved in families' meaning-making regarding illness causality. Undertaking group interviews and follow-up communication with family members, in which participants talked to each other about their health/illness beliefs and practices, generated valuable data. Being able to read through storybooks with parents/guardians (having gained children's permission) helped to further link the stories to aspects of the familial context with the parent/guardian reporting children's experiences that they saw reflected in the stories. In one family a mother and her four-year-old child read through the book together with the mother asking her child about the meaning of some of the content in the book. Allocation of sufficient time for participants to share their thoughts and experiences regarding illness causality was a crucial element of the methodology. Sensitive information that was pertinent to the study was shared by one family member when the interview was drawing to a close and the participant felt safe to disclose the information.

The storybook method could be usefully applied to other research questions which focus on the social context of children's knowledge. For example, in regard to the broader health area Reeve and Bell (2009) note that 'despite some important exceptions, there is relatively little published research portraying the various meanings children associate with health in their own words' (p. 1956). Utilisation of the storybook process in the present study elicited children's understandings of several aspects of ill health including

diagnosis, symptoms, preventative measures, treatment options, and prognosis. However, the storybook approach could be easily adapted to help elicit young children's narratives regarding other topics, for example, medical care, medical fears, visiting the doctor, staying in hospital, the role of healthcare providers, keeping healthy, healthcare campaigns, and disabilities. Other areas that could be explored via the storybook approach include children's perspectives regarding mental health/illness and illnesses without visible symptoms or effects. Implementation of this qualitative approach to research questions in this area has the potential to enrich our understanding of children's conceptualisation.

With a focus on promoting relationships in the research encounter and facilitating children's engagement in the process, the storybook approach was a successful and appropriate method for eliciting children's narrative accounts of illness causality. Although incorporating a task-based process, this method was able to flexibly accommodate the needs of individual children and families. Throughout the process all participants were respected, their rights upheld and their level and form of participation valued. It was a pleasure to work with children and their families, and a great privilege both to hear children's stories and be able to reflect on the learning from the research encounter.

4.6   Summary

Use of a narrative approach to the study of young children's meaning-making regarding the causes of illness in relation to the family context fully embraced the social construction of knowledge and led to the implementation of a storybook method that proved highly effective in eliciting young children's narratives of illness causality. As a researcher engaging in narrative inquiry, I was very aware of the relational nature of this research and the importance of locating myself in regard to the sharing of narrative accounts. Having elicited narratives of illness causality in collaboration with young children and their families, I now needed to find a method of analysis that would acknowledge the social construction of narratives and attend to issues of relationship and context in the interpretation of narrative data.

Chapter Five – Analysis

5.1   Introduction

This chapter describes the analytic process that was used in the current study. Within narrative inquiry, data analysis is an ongoing process that begins during the data gathering phase of the research and continues long after the data has been collected (see Gehart, Tarragona, & Bava, 2007; Moen, 2006). Consequently, the method and analysis chapters of this thesis are closely connected with threads of relationship and context woven through both chapters. Because the adoption of a particular analytic approach has important implications for the interpretation of participants' stories, narrative inquiry requires that careful consideration be given to the mode of analysis used in the interpretation of data. Furthermore, as narrative research is a collaborative exercise involving co-construction of meanings, the analytic process needs to be sufficiently described so that the reader can locate narrative understandings within the context of the research.

The chapter begins with an overview of the decision-making process regarding selection of a method of analysis (section 5.2). Subsequently, section 5.3 describes the social interactional approach that was adopted to analyse the data. Section 5.4 features reflections on the analytic process undertaken in this study. Finally, the chapter concludes with a summary of the main points relevant to the analysis phase of the research (section 5.5).

5.2   Selecting a method of analysis

Narrative accounts can be interpreted from several different angles depending on the nature of the investigation, and this capacity can be considered one of the strengths of narrative methodology. Illuminating the complexities of storied experience by interpreting narratives at more than one analytical level (Phoenix, Smith, & Sparkes, 2010) and through more than one 'theoretical lens' (Riessman, 2003) is highly recommended. One of the many models for interpreting narratives has been contributed by Murray (2000) who, drawing from the work of Doise (1986), identifies four levels of narrative analysis: the personal, interpersonal, positional and ideological. Murray urges researchers to analyse their narrative data in terms of the interplay between each of

these levels. Other narrative inquirers have similarly developed multi-level frameworks for interpreting narrative (e.g. De Fina & Georgakopoulou, 2008; Langellier & Peterson, 2004) drawing attention to both the 'what' and the 'how' of narrative accounts (Gubrium & Holstein, 1998; Phoenix et al., 2010). The present study required an analytical approach that would highlight participants' meanings regarding illness causality and address social process both within and beyond the immediate research context.

To fully explore participants' meaning-making, the analytical approach also needed to work effectively with the narrative accounts of both young children and their family members. As outlined by De Fina and Georgakopoulou (2008), conventional approaches to narrative analysis usually focus on lengthy autobiographical narratives and consequently do not attend to the smallness of narrative instances, telling of hypothetical events and disjointedness that is found within many narrative accounts, particularly those of young children. While such narrative forms might fail to meet certain traditional criteria they remain narratives in their own right. Indeed, in choosing to convey the particular aspects of their experience which have special meaning, even if only briefly, young children are effectively communicating their meanings; 'in a nutshell'. Adults' expression of meaning can also take this shortened form. Providing a salient example of the power of 'small stories' (Bamberg, 2004), Gilbert (2002) refers to an adult participant's narrative that contained just five words but succinctly illuminated meaning and spoke to the very heart of the investigation. With regard to the current study, the analytic approach needed to account for the stop/start talk, non-linear sequencing, inconsistencies, and small stories that are part of the everyday conversations of both adults and children.

As researcher positioning necessarily influences the construction of narratives within the research context, the analytic approach to the current research also needed to address relational issues. As Clandinin, Murphy, Huber, and Orr (2009) note, narrative inquiry is the 'study of people in relation studying the experience of people in relation' (p. 82) hence any interpretation of participants' narrative accounts must be considered in light of the narrator and the listener attempting to understand one another's meanings (Mishler, 1986; Squire, Andrews, & Tamboukou, 2008). Relationship is a key aspect of all narrative research and it is especially significant with regard to the conversations

between adults and young children in the interview setting. Consequently, the analytic approach selected for the current study needed to acknowledge researcher positioning within the inquiry including the existing concepts and biases that were brought to the encounter and the way in which researcher actions and responses during the interview conversation and during analysis impacted upon the narrative data.

5.3   A social interactional approach

The need to highlight social process, both within narrative accounts and within the context of narrative construction, led to the adoption of a social interactional approach (see De Fina & Georgakopoulou, 2008) to data analysis. Emerging largely in response to the restrictiveness of conventional perspectives in terms of narrative criteria, and the viewing of narratives as stand-alone texts, a social interactional understanding considers narrative first and foremost as talk-in-interaction. As meaning is co-produced by the narrator and the listener/reader, narratives will not necessarily follow traditional criteria in terms of structure and coherence. As explained by Georgakopoulou (2006), rather than viewing narrative as a 'supra-genre with fixed structural characteristics, emphasis is placed on narrative events as dynamic and evolving responses to recurring rhetorical situations' (p. 253). Highlighting the ways in which storytellers perform their story for their particular audience, a social interactional approach acknowledges that all narratives are necessarily co-produced (Tanggaard, 2009) with the narrator and story recipient actively engaged in this social process of negotiating meaning.

As well as viewing narrative as a dialogical construction, a social interactional approach to the analysis of narrative data focuses on narrative as a form of social practice. Emphasising an understanding of narrative genres and participation in inter-related communities of practice, the approach is able to highlight layers of meaning at both 'micro- and macro-levels of social action and relationship' (De Fina & Georgakopoulou, 2008, p. 382). Meanings produced within the research encounter are integrated with broader sociocultural processes such as the transmission of knowledge, the status of social groups and the allocation of roles within communities. Such emphasis on the role of narrative with regard to the social functioning of communities of practice made a social interactional approach particularly applicable to a study of the embeddedness of young children's illness causality concepts within the sociocultural

context of the family. Social processes involved in meaning-making within the familial context such as family storytelling, reminiscing, and engagement in ritual could be explored in detail by attending to the various practices, roles, dialogues and interpersonal relationships within the family as a community of practice.

Beyond the family itself narratives could be linked to shared stories and social processes within other communities of practice and to values and beliefs within society at large. Attending to storytelling as a form of social practice, both within and between communities of practice, a social interactional approach highlights the ways in which narratives can be variously employed, negotiated and modified to establish or re-establish group identity, goals and practices – in effect producing or reproducing a shared culture (De Fina & Georgakopoulou, 2008). In valuing the interconnectedness of personal and social meaning, the approach shares an affinity with each of the levels of analysis proposed by Murray (2000) and is in-keeping with Langellier and Peterson's (2004) focus on multiple and overlapping 'systems of social relations'. With the capacity to illuminate meaning, context, relationship and diversity, a social interactional approach was ideally placed to meet the needs of the current investigation.

A multi-level analysis of narrative accounts requires detailed transcription of all narrative data and extra-ordinary reflexivity on the part of the researcher. Decisions regarding transcription influence the analytical process to such an extent that the processes of transcription and analysis work in tandem and are not easily separated (Riessman, 1993). Sections of the interview that appear inconsequential at the beginning of the analytical process may increase in significance later in the process and prove to be of value to the analysis as a whole. It is likely that data will need to be revisited and rearranged many times during the course of analysis (Gilbert, 2002) as the researcher continues to make decisions regarding the relative significance of narrative data and seeks to justify these decisions. Such reflexivity is a key component of a social interactional approach to narrative analysis and needs to be exercised throughout all phases of the research process. Via engagement in reflective practice, narrative inquirers can work towards identifying the lived experience that they bring to the research context and acknowledging its effect on the elicitation, co-production and interpretation of narrative data. By transcribing all narrative instances, regardless of their form, and

reflecting upon all aspects of the research process the researcher is better placed to undertake a detailed analysis of the data.

A social interactional approach to the analysis of narrative data also requires an in-depth consideration of the context in which the narrative account is produced. Such a focus includes attention to the way in which the introduction to the topic, structure of the interview, social roles, and relationship within the research encounter all inter-relate and impact upon the discourse and the development of narrative accounts. It is important to consider aspects such as the nature and timing of questions, responses, and silences (Mishler, 1986; Tanggaard, 2009), as well as noting any repetitiveness and self-interruption within the dialogue (Langellier & Peterson, 2004). Additionally, attention needs to be paid to issues of power influencing communication within the relational encounter, specifically addressing the manner in which social positioning influenced the sharing of narrative accounts (De Fina, 2009). In this way, the narrative data can be located within the particular sociocultural context of its production.

However, while researchers working within a social interactional model endeavour to undertake a detailed analysis of narrative data at both micro and macro levels, it must be acknowledged that all analysis of narrative is inherently 'provisional' (Squire, 2008). Our positioning as narrative inquirers participating within our own unique socio-historical contexts necessarily influences our interpretation of narrative data. Furthermore, while there are strong arguments for re-visiting data, both within the social interactional approach (De Fina & Georgakopoulou, 2008) and within other approaches to narrative (Riessman, 2003), these interpretations are also always provisional and incomplete. As highlighted by White (1992), 'we cannot…know another person's experience of the world. The best that we can do is to interpret the experience of others; that is, the expressions of their experience as they go about the business of interpreting it for themselves' (p. 78). Thus, narrative inquiry opens up possibilities for increased and ongoing understanding of meaning-making within our complex and ever-changing social worlds.

5.4   Reflections on the interpretive process

A social interactional approach to the analysis of data requires recognition of the interview as a truly interactional setting in which the positioning of collaborators, negotiation of meanings and expectations, and potential agendas of the interlocutors are addressed in the interpretation of data. Furthermore, narratives are viewed as a form of 'social action' (Atkinson & Delamont, 2006) in which interactional and social goals are achieved thus illuminating social process within and beyond the narratives themselves. Consequently, this section focuses on reflections regarding the use of a social interactional approach to data analysis highlighting various ways in which narrative accounts were both co-produced within the research context and served as a way to communicate meaning-making in relation to the family as a community of practice and the wider social world.

Interpretation of narrative data needs to be viewed in the context of the various identities and subsequent positioning adopted by collaborators because the reciprocal positioning between researchers and participants necessarily affects the nature of the narratives that are shared (see De Fina, 2011). Furthermore, a social interactional approach to data analysis recognises that the various and shifting identities that a person presents are based on the narrator's perception of the listener/s (De Fina, 2011). Participants' possible identity constructions as: the child/brother/sister/parent/ grandparent/family member/spouse/caregiver/host/participant/healthy or unhealthy person/member of a particular cultural and/or spiritual community, and resident or citizen of New Zealand need to be factored into the analysis. Likewise my various identities as researcher, student, guest/visitor (of the family and the kindergarten), former teacher, expectant mother, hospital play specialist, and 38-year-old New Zealand citizen of European descent also need to be acknowledged as influencing the generation and analysis of data.

Narrative accounts revealed participants' constructions of themselves in terms of their knowledge regarding illness causality. Children's self-identification of their knowledge in the subject area was reflected in phrases such as 'I know heaps', 'remember', and 'I have no idea'[5]. Adults' comments such as 'Did I tell you I'm a (healthcare

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[5] Transcript notation is described in Appendix 17.

practitioner)?' also revealed the way in which participants constructed 'the self' during the dialogical exchange. Participants frequently positioned family members with regard to the topic, for example, 'she's one of those traditional birth attendants so she knows all about it' and 'my wife, she's a medical person, she understands well'. Participants' perception of their illness causality beliefs and practices being similar to that of other family members and thus creating a family identity was revealed in phrases such as 'that's our Island way' and 'that's what our belief is'.

Participants' uncertainty or conflict with regard to illness causality beliefs and the dynamic nature of belief systems was also highlighted in narrative accounts as evidenced in the following comment by a family member: 'I didn't believe it but it has happened so I have to'. Participants referred to possible or perceived differences within the family, for example, 'I don't know what she would say', and 'but I'm different' three times in the one interview. Furthermore, participants' experience of conflicting belief systems in terms of personal/professional identities was also demonstrated, for example, 'I'm a (healthcare practitioner), I'm not meant to…'. Uncertainty regarding the cause of illness gave rise to rhetorical talk as shown in the following narrative excerpts: 'But you don't know really do you in these circumstances?', 'How does it find you? ... You didn't exactly come out and say "Booboo I'm here. Come and get me". How do you get these things?', and 'I don't know if it's us being the way we are or is that what everyone else is? ... Or are we just over-protective? ...I don't know'. Thus, narratives reflected participants' ambivalence as well as their certainty in locating themselves within illness causality belief systems.

Negotiation of meaning and expectations was another key feature of the research context and needs to be acknowledged in any interpretation of data. Participants questioned me regarding my meanings and vice versa, as evidenced in questions such as 'So you mean like…?' and 'So are we talking about the flu or the meningitis?' Participants also sought my expectations for their storytelling, for example, one child asked me 'Can I write "I'm not sure"?' (I replied 'Yes, you can write "I'm not sure" absolutely'). In another example, I asked a child 'I wonder what happened that he might have got hurt?' and the child's response was in the form of a question; 'How bout fall down?' Children's meanings were also negotiated via body language. Children frequently gestured to their own body parts when explaining the location of the illness,

injury or pain, for example, placing their hand on their head, pointing to their elbow, or demonstrating a sneeze and I also engaged in this non-verbal form of communication in order to establish children's meanings.

Negotiation also took place regarding the amount of information required and offered, for example, a parent's question 'In only mine?' when asked to talk about illness within his family, and a child checking if I knew about graveyards and thus would be able to understand the story that she was about to tell without needing additional information. Participants also corrected me when I had misinterpreted their use of a phrase or failed to understand their meaning. In one salient example, a young child had to go to great lengths for me to be able to understand her meaning when she referred to the word for medicine in her home language. The child had to employ a variety of phrases and gestures before I could understand her meaning, and fortunately she persevered to this end. In this scenario we were working from two very different contexts and endeavouring to understand each other via a process of negotiation. Negotiation and checking of meanings was also a significant feature of the group interviews with families. Adding further information to someone else's comment and clarifying a comment that another member of the family had made were regular features of group interchanges. Family members frequently sought and obtained gestures of agreement from others in the group regarding the details of a family story and, in some cases, provided family members with the English translation of a particular word.

The 'recipient design' of stories (De Fina, 2009; Riessman, 1997), was further reflected in the way in which some participants prefaced their narrative accounts. Narratives that began with 'Well some people say…but I think…', 'I've heard people say…', and 'I'm probably speaking out of turn speaking about their family' suggested participants' presumptions regarding the expectations of the listener, the family and the wider social world. Additionally, participant comments such as 'It's really hard to explain actually' also reflected notions of narrative itself. Participants' decision-making and negotiations regarding whether or not a narrative should be told at all is highlighted in the following excerpt from an interview with a family member. Prior to this dialogue the family member had sought reassurance regarding confidentiality before telling her story:

    Family member: It's just, I'm sharing with you

Caroline:	Right, right, yeah no I appreciate that. It's not something that you'd
Family member:	The question you asked me, then what should I say?
Caroline:	Mmm
Family member:	About that

Acknowledgement of negotiations regarding the telling of certain stories, and the way in which stories were told, or indeed performed, in response to audience reaction and perceived expectations and roles was an essential part of the interpretive process.

Imposition of my agenda as researcher, in the form of possible disruptions to story-telling or the favouring of some accounts over others, also needs to be acknowledged in the analytic process. During one interview with a young child, identified here as 'Joseph', I made attempts to draw the child back to the story despite his desire to move on to the next story. On this occasion I imposed my researcher agenda of obtaining more information rather than following the child's agenda of talking about the next scenario. At this particular moment each of us wanted to work at a different pace.

Caroline:	So is he going to get better?
Joseph:	Yep
Caroline:	He will get better?
Joseph:	Yeah, yeah, now the next kid
Caroline:	Well hang on, hang on, 'cos we need to slow down with this guy

The child returned to the story briefly but was still keen to move quickly onto the next scenario which he did. A social interactional approach requires critique of such power relations between collaborators and acknowledgement of the way in which various positioning within the relational encounter affected the storytelling process and consequently the interpretation of data.

Reflecting on the analytic process within the current study, I am mindful that I was observing and interpreting a social phenomenon that I helped to create (Clandinin & Murphy, 2009; Josselson, 2007). From the very beginning of fieldwork I was engaged in an interpretive process with fellow collaborators as we endeavoured to understand each other's meanings and continually adjusted our responses based on perceived

identities and intent. Only by studying myself in relation with my fellow collaborators could I provide an interpretation of participants' meaning-making in social context.

5.5   Summary

The current study utilised a social interactional approach in the analysis of narrative data. Use of this particular approach enabled the highlighting of social process within the research context as well as within the narratives themselves. Additionally, narratives of illness causality could be linked to social processes both within the family as a community of practice and within the wider social world. Appreciating narrative inquiry as a collaborative dialogical process involving co-production of narrative accounts, my analysis of participants' stories attended to aspects of relationship and context which necessarily impacted upon the analysis of data. Interpretation of narrative accounts occurred throughout the entire research process and continues with each reader's unique understanding of the re-presentations of narratives generated within the research context. Consequently, the following chapter focuses on young children's understandings of illness causality as co-constructed within the research setting and interpreted within a social interactional framework.

Chapter Six – Young children's illness causality constructions

6.1 Introduction

In this chapter I provide an analysis of young children's narratives of illness causality that highlights children's illness causality constructions. Analysis is based primarily on the transcripts of interviews with children; however, in order to contextualise my interpretation of children's narrative accounts, I also refer to data gathered during interviews with family members. The chapter begins with a description of the findings (sections 6.2 and 6.3), followed by a discussion of young children's illness causality constructions in relation to theoretical perspectives (section 6.4). Subsequently I reflect on children's behaviour-based understandings of illness causality with regard to folkbiology and the regulation of children's health behaviours across sociocultural contexts (section 6.5). In closing this chapter of the thesis I summarise key aspects of young children's meaning-making about the causes of illness (section 6.6).

6.2 Behaviour-based understandings

Young children's meaning-making regarding the causes of illness largely reflected behaviour-based understandings. During the interview process, children referred to a variety of illnesses and causes of illness. The most frequently cited illnesses or 'states of ill health' were as follows: 'cough', 'bleeding', 'sore eyes', and 'sore/hot head'. Illness references included symptoms, conditions, and both intentional and non-intentional injuries. References to death and dying were also present in the narratives of some of the young participants, for example, Natalia's comment 'if you smash your car behind you that's when you're dead and then you go in a graveyard', and Joseph's remark 'she's gonna die…they're gonna cut her neck'.

Young children's narrative accounts regarding the causes of illness primarily reflected behavioural actions of self and others as causal factors for illness. One of the most frequently stated behavioural actions causing illness was 'eating too much food' (especially lollies and ice-cream), for example, Natalia's comment 'if you eat too much ice-cream or stuff you get asthma' and Ruby's explanation 'her eat a lot of food and it (mouth) was so so sore'. Being in the cold and/or wind was another causal factor frequently mentioned in children's narrative accounts, for example, Joseph's

explanation 'she was playing (outside) then she got cold', and Emmi's comment that the character 'got the cough' because 'she went outside on a windy day'. Regarding the behavioural actions of others, the most frequently stated behaviours causing illness involved physical force inflicted by another person, for example, Jasmine's explanation 'someone hurt him on the head' and Ruby's remark 'the man, it's a yucky man, pushed the eye on the baby'.

Frequently children spontaneously related their behaviour-based explanations for illness to their own experience. With reference to a girl in one of the topic photographs, Jasmine commented on the cause of the character's illness as follows:

Jasmine:	When she drink cold she get a cough
Caroline:	Oh, ok
Jasmine:	((as Caroline is writing)) When she drink cold she's getting, she's getting cough! [1] Just like me!
Caroline:	Ah
Jasmine:	((coughs))

In this narrative extract Jasmine relates the character's situation to her own experience and emphasises the point by providing a demonstration. In another interview, Ruby spoke of a character's sore teeth and added 'sort of like me' again linking the character's story to her own world.

Most of the children also spontaneously referred to the illnesses of family members and the behavioural causes of such illnesses. When constructing a story about a girl in a topic photograph who was lying in bed with her hand on her forehead, Emmi referred to her father's sore eyes and attributed the cause to her father's actions. In response to the same photograph, Natalia recounted the story of her brother's illness event involving a bunk bed (see chapter seven, p. 92). Initially Natalia commented that she didn't know why the character was ill and then, after a brief pause, she declared that she did in fact know and talked about her brother's experience. Natalia ended her story with the comment 'cos I know, when you stay in bed for a while you get real hot'. Similar examples of children reflecting on their own knowledge featured throughout young children's narrative accounts.

6.3   Illness prevention messages and behavioural rules

Young children's illness causality constructions reflected illness prevention messages, and the relating of such messages to the child's world. Jasmine referred to a character getting sore cheeks from being outside in the cold, and commented that she herself gets red cheeks from being outside. While constructing a story about a child in a topic photograph having sore eyes, Natalia repeated her warning about the 'bubbles' from the pan going 'up on your eyes' and hurting them (see chapter seven, p. 93). At the end of her story Natalia referred to her own world describing the food that she had eaten after it had been cooked in the pan. Throughout the storybook process Joseph repeatedly spoke of the importance of 'drinking the Vicks' in relation to both the prevention and treatment of illness. Joseph commented that a character was sick because 'she never drink the Vicks'. He also spoke of how drinking the Vicks 'makes the coughs runs away' and how the character needed to 'hurry up to that Vicks'. Joseph commented that he has Vicks sometimes and emphasised that it is 'not a drinking one' but 'like a cream one'. Additionally, in reference to a younger child in a topic photograph Joseph commented that the boy in the photograph could have Vicks when he got bigger. Thus, children incorporated cautions into their illness causality constructions and viewed these messages as conveying important information that others needed to know.

Four of the five children also communicated behavioural rules associated with illness prevention. When constructing a story about a character in a photograph with his hand on his forehead, Jasmine talked about how the boy had a sore head from being hit by another boy. She spoke of the importance of children not hitting or hurting each other and incorporated the line 'the teacher told the boy (the assailant) "don't hurt"' as a way of preventing children from getting hurt on future occasions. During the storybook process Emmi talked about a girl in a topic photograph getting a cough from going outside when the sun wasn't out, and repeatedly stated that she herself can play outside when the sun is shining. When viewing a photograph of a child lying down with his eyes closed, Joseph spoke of the importance of turning the fan off to prevent illness (see chapter seven, p. 89). Such communication of behaviour-based explanations for illness and behavioural guidelines regarding illness prevention was prevalent in children's narrative accounts.

Analysis of interview data revealed that these four-year-old participants were very adept at providing spontaneous explanations regarding the causes of illness. In constructing their narrative accounts children frequently linked their meaning-making regarding illness causality to experiences within their own world. Predominantly identifying behavioural actions as the cause of illness, children often located responsibility for illness with a particular individual – either themselves or another person. Illness prevention messages and behavioural rules or guidelines were communicated via children's narratives and given particular emphasis as information that needed to be shared.

6.4   Children's constructions in relation to theory

The behaviour-based explanations for illness provided by all of the young children in the current study suggest that four-year-olds' understanding may be more complex than traditionally maintained. In the first instance, analysis of children's narrative accounts does not lend support to Piagetian-based models of illness causality conceptualisation. According to Bibace and Walsh's (1980) maturational framework, four-year-old children are expected to provide explanations characteristic of the pre-operational period (2-7 years) i.e. responses based on phenomenism or contagion, for example, 'it just happened' or 'the moon did it'. Explanations characteristic of the phenomenism stage involve an external concrete phenomenon independent of the child's activity while explanations in the contagion stage involve objects or people near (but not touching) the child. In contrast to the expectations of the Bibace and Walsh framework, four-year-old children's narrative accounts revealed a very high incidence of concrete-operational explanations especially regarding behavioural actions, for example, 'fan was going round…never offed it', 'scratching spots', and 'eat too much lollies'. Within the maturational model, associating illness with particular behaviours or consequences does not occur until children have reached the concrete-operational period (7-10 years).

Other Piagetian-based developmental models regarding young children's understanding of illness causality anticipate that four-year-old children will determine the cause of illness in terms of a person's emotion, physical appearance or observable action (Borzekowski, 2009) rather than referring to an unidentifiable behavioural action or physiological cause of illness. In the current study children's narrative accounts of

illness causality did not reflect emotional events or states as the causal mechanism for illness. Similarly, Zhu et al. (2009) found no examples of psychogenic explanations in preschool children's responses regarding the cause of illness. Furthermore, in the current study young children's spontaneous explanations for illness did not reflect physical appearance or visible action as the cause of illness. Instead, children provided behaviour-based explanations for illness rather than symptomatic explanations (e.g. being sick because they have a cough) or biological explanations (e.g. being infected by bacteria).

Analysis of children's narrative accounts also failed to reveal other concepts featuring in cognitive frameworks and previous studies. Contrary to the expectations of traditional developmental frameworks, instances of immanent justice were not present in children's narrative accounts. However, I acknowledge that the concept of immanent justice may have been revealed had I asked children to determine the causality of illnesses outside their realm of experience. Given their illness background, children's explanations were more realistic and less magical. Again, evidence of more sophisticated responses may be due to children identifying illnesses they were familiar with rather than being asked to determine the cause of illnesses beyond their personal experience (Siegal, 1988). Additionally, analysis of children's narrative accounts did not find evidence of vitalistic thinking as proposed by Inagaki and Hatano (2002). Rather than referring to examples of 'life force', children referred to particular behaviours as being the cause of illness – behaviours viewed as 'contaminants' in developmental theory and characteristic of the concrete-operational period of cognitive development.

In revealing children's contamination responses, findings contrast with traditional studies of young children's conceptualisation of illness causality. Contamination explanations include references to the 'body surface coming into direct physical contact with (a) "contaminant" or engaging in a "bad activity"' (Bibace & Walsh, 1980, p. 914). However, since these early studies the beginnings of contamination awareness amongst the preschool age-group has been identified (Legare et al., 2009). It is now acknowledged that across the adult population there is likely to be a propensity toward contamination concepts (Rozin, Fallon, & Augustoni-Ziskind, 1985), although the precise nature of contamination may well vary depending on particular cultural contexts

(Legare et al., 2009). Consequently, children's growing understanding of contamination and the specific nature of contaminants may also vary across sociocultural contexts.

The relationship between young children's behaviour-based understanding of illness and folkbiology is receiving increasing attention in the literature. In research involving 3-5-year-old participants, Zhu et al. (2009) found a high incidence of behaviour-based explanations for illness, for example, 'not washing hands before eating' and 'going outside on a windy day with wet hair'. The majority of children's responses fell under the folkbiology umbrella, that is, common-sense understandings in cultural contexts. Such causal factors were frequently communicated by Chinese parents when talking with their children about how to remain in good health and avoid illness, and oftentimes formed the basis of behavioural rules. Similarly, in a UK study, Myant and Williams (2005) found that children aged 4-5 years, along with older children, tended to attribute 'colds' to cold weather rather than contagion. The authors highlight that parents regularly tell their children that if they go outside in the cold weather without sufficient protection they will catch a cold (Myant & Williams, 2005).

Reflecting on my findings I am aware of both strengths and limitations within my research. I recognise that my positioning as a researcher, including the existing concepts and biases that I brought to the encounter and my actions and responses during the interview conversation and during analysis, necessarily influenced both the construction and interpretation of these accounts. By adopting a narrative approach I was able to hear children in their own words. Children were very keen to share their stories, and both the methodology employed and the environment created within the research context appeared to facilitate this process. However, I acknowledge issues of power and bias that may have influenced communication within the relational encounter. Were narratives essentially reflecting children's attempts to meet expectations? Did the phrasing of questions inadvertently frame children's responses? I also acknowledge that the small number of children and gender imbalance, although sufficient for an in-depth qualitative study, limits the extent of my findings. Additionally, use of photographs depicting children may have restricted children's responses to childhood illness. Nevertheless, taking these aspects into consideration and mindful that all interpretation is necessarily 'provisional' (Squire, 2008), I believe that young children's spontaneous

explanations for illness have been observed in this study to provide a useful basis for comparison with previous findings, and a sound direction for ongoing work.

6.5   Folkbiology and the regulation of health behaviours

The behaviour-based explanations for illness present in the narrative accounts of all of the four-year-old participants also suggest that young children consider ill health to be caused by an individual's engagement in particular actions or activities. Likewise, non-engagement in certain health-promoting actions or activities is also viewed as a cause of illness. Such a focus on behaviour and its consequences featured strongly in children's narratives with preschoolers spontaneously referring to illness prevention messages and behavioural rules for avoiding illness. In this section I reflect on young children's behaviour-based constructions with regard to folkbiology and the regulation of children's health behaviours across sociocultural contexts.

Children's behaviour-based constructions are in line with everyday illness understandings of both older children and adults in various parts of the world. The notion that colds and flu are caused by getting wet and/or cold is a prime example of a folk belief that is widely held by people of all ages and across different cultural communities (Au et al., 2008). In Au et al.'s (2008) study, 8-year-old Hong Kong Chinese children viewed the following behaviours as cold/flu risks: 'not dressing warmly; not being tucked in well at night; being exposed to cold wind and/or cold air blasted from air-conditioners or electric fans' (p. 7). Furthermore, being exposed to cold weather, or extreme temperature change, are common lay explanations for colds and flu despite evidence to the contrary (Sigelman, 2012). Studies have shown that such folk beliefs continue to be held by people even after a germ theory has been acquired thus signaling a co-existence model of illness causality (see Gelman & Legare, 2011; Ramon & Winer, 2002). Seeking to explain this phenomenon, researchers have suggested that the correlation between winter and the cold/flu season may in some way account for the robustness of the cold weather theory of disease as it is transmitted from generation to generation (Au et al., 2008; Sigelman, 2012).

Folk beliefs signal the existence of a 'folk science' in which individuals make sense of the world via informal learning rather than through formal learning of scientific tenets

(Carey, 1988). Folk sciences such as folkbiology (i.e. everyday knowledge of living things) are present in all cultural communities and involve the tracking of particular causal patterns in an attempt to enhance understanding (Keil, 2010). These 'intuitive' or 'naïve' theories develop in the preschool years and are socially-embedded as children go about exploring their world (Keil, 2010). Although the way in which children make sense of biological processes is yet to be fully determined (Harris & Koenig, 2006), it is suggested that culture and expertise are important factors in children's development of folkbiological knowledge (Ross et al., 2003). Researchers have found that sociocultural background influences school-age children's theories of illness causality, for example, Sigelman (2012) found that cold weather theories for colds/flu were more common among minority school-aged children (primarily of Mexican American descent) than among their European American peers. Thus, the processes leading to sociocultural differences within folkbiology merit further investigation.

Reflective of folkbiological understandings of illness causality, children's behaviour-based constructions may be the result of children's cultural learning (Au et al., 2008) whether by direct or indirect means. According to Shweder (1996), 'members of a cultural community acquire their culture through praxis; in other words, they resonate to, activate, or absorb unarticulated concepts and principles through exposure to behaviour' (p. 33). Additionally, as noted by Parker White et al. (2011), most young children have had their own experience of common childhood illnesses such as colds, flu, chest infections, and ear infections, as well as the experience of observing illnesses of family members, and they are also familiar with the language used to communicate understandings of health and illness in their cultural context. On a regular basis young children ask more experienced members of their community, and particularly their parents, 'why things happen and how things work' (see Callanan & Oakes, 1992). Gelman (2009) suggests that the interpretations provided by others have a significant impact on children's understanding. Thus, it is via experiences *and* interactions with others that children are likely to make sense of their social world (see Carpendale & Lewis, 2004), and in this case, the onset of illness.

Four-year-olds' illness causality narratives suggest children's exposure to the regulation of health behaviour. Several theorists have discussed the notion of regulation in relation to children's learning and development. As highlighted by Bradbury and Miller (2010),

Vygotsky conceptualises 'human understanding as mediated, initially through the regulation of others (primarily through language) and then by self-regulation as a result of internalization' (p. 688). According to Bronfenbrenner's (1977) social ecology model, human regulation moves from caregivers' regulation of biological/physical aspects such as temperature and hunger to regulation of social aspects such as behaviour, with the actions of others impacting on a child's ability to self-regulate (Sameroff, 2010). In relation to health behaviours, adults may insist that children engage in healthcare routines to avoid ill health, for example, drying themselves quickly after swimming, wearing warm clothing, washing their hands, and brushing their teeth (see Au et al., 2008; Tinsley, 2003). Studies suggest that mothers of four-year-olds provide greater detail regarding established rules than they previously provided, combine self-care rules with rules regarding social conventions, and place particular emphasis on safety (see Tinsley, 2003).

Regulations are embedded in the interactions between children and their families, and also in the interactions between family and society (Bornstein, 2009; Raver, 2004), including the active promotion of health behaviours at a national level such as preschool health checks and immunisations. Consequently, the rules regulating children's health behaviour are likely to vary across sociocultural and sociohistorical contexts and reflect sociocultural values (see Zhu et al., 2009). As well as cultural communities attaching different meanings to behaviours, very different practices can have the same meaning across cultural communities (Sameroff, 2010). Thus, preschoolers from diverse backgrounds may have different views regarding health and illness due to the particular experiences, beliefs and practices within their sociocultural contexts (Herrmann, Waxman, & Medin, 2010). With reference to the current study, four-year-olds' behaviour-based constructions suggest that the behaviours communicated within the family, as the main sociocultural context for young children, may have a significant impact on children's meaning-making regarding illness causality.

6.6   Summary

Analysis of four-year-old participants' narratives of illness causality led to the discovery of two major threads regarding children's everyday understandings of illness causality: (1) behaviour-based explanations for illness; and (2) illness prevention messages and

behavioural rules. Such a focus on health messages and behaviour is suggestive of folkbiological understandings and the regulation of health behaviours in social settings. Findings indicate the importance of sociocultural contexts in children's knowledge construction; and, in particular, direct attention to 'the family' as the main sociocultural context for preschoolers. In the following chapter I provide an analysis of children's illness causality constructions in relation to the familial context, and highlight children's meaning-making via participation in family life.

Chapter Seven – Young children's meaning-making within the family context

7.1   Introduction

Young children's behaviour-based explanations for illness, largely reflecting illness prevention messages, rules and routines, suggest the importance of the sociocultural contexts of children's knowledge construction. As the family is the primary sociocultural context for preschoolers' learning and development, I now consider children's understandings in relation to family life. Analysis of the illness narratives of four-year-olds and their family members highlights the various ways in which young children draw on their family contexts to make sense of illness, and illustrates the embeddedness of children's illness causality constructions within the sociocultural context of the family.

The chapter begins with an analysis of young children's meaning-making via participation in family life (section 7.2). Children's active engagement in family conversations, activities and routines pertaining to health and illness is highlighted with reference to the narrative accounts of young children and their families. In the following section an analysis of four-year-old participants' meaning-making regarding illness causality in relation to their family context is presented in the form of two case studies (section 7.3). Findings are then discussed with regard to the ways in which children draw on their family context to make sense of illness (section 7.4). The chapter concludes with a summary of the main points addressed in this section of the thesis (section 7.5).

7.2   Constructing meanings via participation in family life

In constructing their narratives of illness causality, four-year-old participants frequently referred to the illness experiences, illness prevention messages and behavioural rules communicated in their families. Participants' narratives revealed that all of the young children were very aware of their own and family illness, and incorporated this awareness into their meaning-making about illness causality. Young children's observation of the illness experiences within the family was evident in children's relaying of illness events. Children communicated their awareness of episodes of illness via conversation and role-play, in some cases repeatedly telling the story of an illness

event. During the interview process, Emmi referred to a character in a topic photograph as having sore eyes and talked about her father having sore eyes. When asked 'How come he got the sore eyes?' Emmi replied 'He was closing his eyes and touching them and then it happened.' Emmi's mother spoke about her daughter's repeated role-playing of her father's recent experience of conjunctivitis and her exclamation 'Oooh I've got sore eyes. I've got the same thing like Pappa got'. Additionally, children relayed their awareness and memory of their own illness experience, and family members' involvement in the illness episode, even when the event had occurred some time ago as in the example of Joseph talking about his broken hand that he sustained when he was two years old.

All of the children actively sought information and clarification from family members regarding the cause of illness. Noticing changes in a person's appearance as a result of ill health often prompted children to ask questions about the cause of the illness. Young children showed curiosity regarding illness experiences and sought clarification from the family members directly affected by the illness. Jasmine's grandparents spoke of their conversations with their grandchildren regarding illness in the family. On one occasion Jasmine and her sister asked their grandfather about his missing finger and he employed humour in his initial response:

> Grandfather: As you can see I lost a finger. They asked me about that ((laughter)). And at the beginning I said, I was joking, and I said "I was hungry one day and I bit it" ((laughter)).

Subsequently this grandfather provided his grandchildren with the real reason that his finger was missing:

> Grandmother: After, you told them the truth.
> Grandfather: Told the truth. I told them I lost it when I was working. So it was a laugh really. They ask me about things like that.

The grandfather had been working as a butcher at the time of the injury.

Oftentimes children's observation of medical equipment and mobility aids also prompted children to ask family members questions regarding the cause of illness. When visiting their father's workplace, Jasmine and her sister asked their parents why a person was in a wheelchair:

Father:	I work in a hospital for elderly people and sometimes ... they (go) to the hospital to see some of the residents.
Mother:	They ask why this one is in the wheelchair because we don't have any family or friends. When we started going we saw one friend there and they ask why and we just say something because we don't know how to explain but maybe we say ... because this lady had a stroke. For this she is in a wheelchair. They can't understand the stroke but we explain it is something that happens in your head.

Children's participation in family outings in the neighbourhood and other family activities such as watching television programmes often generated such discussion regarding health and illness.

In several cases, news of tragedy in the local community prompted conversations about health and safety issues. Families spoke of driving past a house in which two young children had received fatal burns, and described the family discussion that ensued. Emmi's mother talked about her children's response after their aunt had told them about the house fire:

> What's happened is just in the (local road) there's a house burnt near the motorway and my sister-in-law's daughter she goes to about year 3 in (local school) …And then she was talking about that you know…the kids that got burnt was actually in that school so you know she was telling that, how it happened and this too absorbed into their mind. And they used to talk about that all the time 'you know what happened? The Dad just switched on the stove and forgot about that and he went off to sleep'.

Other news items involving fatalities also prompted discussion among siblings. Emmi's mother shared:

> They say 'I heard this in the news' or something and they repeat that thing. 'That person died'. 'How did he die?' 'He died that way'.

In some cases children also relayed, re-enacted and re-scripted these tragedies in their play, for example, Natalia's role-play of the house fire using a toy ambulance.

Children frequently initiated the family discussions regarding health and illness that emerged during outings in the community. Emmi's mother spoke of her children noticing photographs of a baby with meningococcal disease that were displayed in a doctor's waiting room as part of a nationwide immunisation programme, and described the questioning that followed:

> They've seen the photos actually. You know the baby with the tubes and all the spots all over and they used to ask when I go to the doctor 'What is this? How did the baby (get) like this?'

Children's meaning-making regarding meningococcal disease was also influenced by their participation in the meningococcal b immunisation programme that was currently running in their community and their awareness of the high-profile public health campaign accompanying the roll-out. During the storybook process Natalia commented that one of the characters needed to have 'his needle test' and pointed to her upper arm to describe the injection site. Natalia was due to have her meningococcal immunisation two days after our interview. Her family had talked to her about her vaccination appointment and Natalia's mother thinks that Natalia was referring to her upcoming vaccination in her story.

Children sometimes queried the rationale of health messages and routines within their family context. Jasmine's father spoke of the questions posed by Jasmine regarding the importance of eating certain foods:

> Most of the food, we try to eat properly, fruits, and she always asks 'What is it making in my body?' or 'Why do I have to eat this?'…So we explain, for example, a banana because potassium is good for your legs.

Additionally, siblings often communicated health information to each other. In a discussion about the health benefits of eating cereal for breakfast, Jasmine's older sister informed Jasmine that it is important to eat the cereal 'because you can jump higher'. At the time of this discussion, the children were looking at a picture on a cereal box showing people jumping. Jasmine's mother spoke of her children's continued questioning regarding the family's goal of 'trying to eat properly' saying 'they always ask "But this helps me for what?" ... sometimes we know and sometimes we don't.' Children engaged in repeated questioning regarding health matters and associated practices.

Young children's meaning-making regarding illness causality was also a function of their participation in family healthcare routines aimed at preventing illness. In reference to Jasmine's story about a character getting sore cheeks from being outside in the cold, family members reported that Jasmine and her siblings have a tendency to get dry cheeks and lips so their parents apply moisturising cream to the children's faces as part of their daily healthcare routine. Jasmine's mother explains to the children that being out in the wind dries their skin and they need to regularly moisturise their face so that it doesn't dry out. Children's participation in health and safety routines often required children to follow family rules for preventing illness which also contributed to children's meaning-making as evidenced in the storybook process, for example, Natalia's reference to the importance of standing back from the hot pan and Joseph's reference to the importance of turning the fan off. Children also relayed the consequences of not performing health and safety routines.

Analysis of narrative data indicates that young children's meaning-making about the causes of illness was influenced by their participation in family discussions, activities and routines. Children were observing, questioning, relaying, querying and explaining the illness experiences, illness prevention messages and healthcare routines communicated within their families. These children created their own meanings about the causes of illness as a consequence of their experience of family life. Their awareness and interest in the illness events and health messages within their family, and within their wider sociocultural context, led to participation in family storytelling and discussion about the causes of illness. Young children conveyed knowledge of health and safety messages communicated within their families and a desire to share this knowledge with others. Thus, analysis of participants' narratives suggests that children construct their understandings of illness causality via their purposeful engagement and activity with others in their family. Furthermore, the values, beliefs and knowledge of family members, coupled with expectations and assumptions regarding children's understanding, may have a significant bearing on the health/illness information provided to young children including the level, form and timing of such information.

7.3   Children's meaning-making in relation to the family context

In this section, an analysis of young children's meaning-making about the causes of illness in relation to the family context is presented in the form of two case studies: Joseph and Natalia. These cases have been selected because they are particularly illustrative of the findings. Like the wider study group of four-year-olds, Joseph and Natalia provided largely behaviour-based explanations for illness causality attributing illness to the actions of self and others, and spontaneously drew on their family context in their explanations for illness. Analysis of the narrative accounts shared by all of the young children during the interview process suggests that the illness experiences, illness prevention messages and behavioural rules within their family feature significantly in young children's meaning-making regarding the causes of illness.

Case 1 - Joseph and his family

Joseph is a four-year-old boy who lives with his parents, older brother (aged 7 years) and maternal grandparents. His paternal grandparents and other relatives also live nearby. All family members identify as Fijian-Indian and spend a great deal of time socialising together. Joseph was born in New Zealand, his parents having emigrated the previous year. His mother works in healthcare and his father works in the transport industry. Joseph's mother and maternal grandparents are Hindu, and his father and paternal grandparents are Muslim. Family members speak both Hindi and English.

Joseph's mother describes Joseph as culturally sensitive and 'not bothered by anything'. He regularly attends both Muslim and Hindu prayer meetings with his family and knows exactly 'whom to greet with which greeting'. In general Joseph keeps good health. He experiences coughs/colds and flu on occasion, and has eczema. Other illnesses experienced within his family include: diabetes, allergies, headaches, asthma, arthritis, and heart conditions. One of Joseph's grandmothers has diabetes and during the storybook process Joseph described how he regularly watches his grandmother 'test the blood' with the 'pinky finger'.

During the storybook process Joseph spoke about illnesses such as sore ears, cough, cut neck, broken hand, and bleeding, and also talked about death. Many of Joseph's narratives included references to his own experience of illness. In relation to a

photograph of a girl with spots over her body Joseph talked about how the girl's skin will bleed when she scratches her spots. The family report that Joseph has eczema and regularly applies steroid cream to relieve his itchy spots. During the storybook process Joseph also talked about his own experience of having a broken hand and needing to go to the doctor. He said he couldn't remember how it happened but he knew that it had happened at home. Joseph emphasised that his father didn't see him fall and reiterated the comment 'my Dad never saw me'. He talked about the doctor putting the plaster on and gestured to his elbow. He also mentioned that his shoulder 'got hurt'. According to Joseph's family, Joseph had a broken arm when he was two years old. His mother had forgotten about him injuring his arm until she read Joseph's story. Joseph had sustained a broken arm after he jumped off a chair in the living room and fell onto the floor. His arm was in plaster and in a sling. At the time of the injury Joseph told his family that his shoulder was sore and Joseph's mother suspects that this was due to the weight of the plaster. Joseph clearly remembers having a 'broken hand' but did not identify the circumstances or cause of the injury.

During the storybook process the illness that Joseph referred to most often was 'coughs'. He frequently talked about characters having coughs and incorporated coughs into five of the six stories that he constructed. Joseph explained that the characters' coughs were 'from being in the cold' and 'playing outside in the cold'. Throughout the storybook process Joseph made several references to temperature and changes of temperature in explaining the cause of coughs. In reference to a photograph of a girl with her eyes closed holding a handkerchief near her face, Joseph told the story of how the character 'got sick' with the coughs when she was playing outside and got cold:

Joseph:	She was playing, *then* she got cold.
Caroline:	Ah…And then what happened?
Joseph:	Then
Caroline:	Mmm
Joseph:	Then she got in the heat
Caroline:	Then she got in the heat
Joseph:	In the heater

In this narrative account Joseph provides temporal detail, for example, '*then* (Joseph's emphasis) she got cold' and later, 'then she got in the heat'. Joseph made other references to temperature in his narrative accounts. In relation to a topic photograph of a

child lying down with his eyes closed, Joseph constructed the following story to explain how the character 'got sick':

Caroline:	And how did he get sick?
Joseph:	He got sick when he was inside, he was got hot and the inside was cold. The fan was on.
Caroline:	Oh
Joseph:	Then he never, then he never off it.
Caroline:	Never off it
Joseph:	Yeah, I know that.
Caroline:	You mean turn it off?
Joseph:	Yeah, turn it off. _Never_, it was, it was going in a circle around ((moving his arm around in a circle)).
Caroline:	It was going round and round?
Joseph:	Yep. Then he got sick.

In the above extract, Joseph reiterates the point that the character '_never_ turned it off' emphasising the character's responsibility. He also clearly highlights his awareness of his own knowledge saying 'yeah I know that'. By repeating his statements, verbally explaining the action of the fan and providing a demonstration, Joseph provides additional information to clarify his point. Finally, Joseph emphasises the temporal detail of the story stating 'then he got sick'. Follow-up communication with Joseph's grandparent suggests that Joseph was drawing on a family rule when constructing his story. According to the grandparent, Joseph 'feels hot all the time'. The parents and grandparents tell the children in this family not to use the electric ceiling fan as they will get sick. Instead of using the fan the children are instructed to open the front door and lie on the floor in the passage.

Joseph's meaning-making regarding the cause of coughs reflects his family members' illness causality beliefs. Joseph's mother believes that coughs and colds are caused by the change of temperature, especially sudden change. The previous year Joseph had become ill with a 'very productive cough' during a family holiday in Fiji. His mother believes that 'the temperatures made him (Joseph) sick'. Similarly Joseph's father believes that it is the weather, 'the change in climate' that is responsible. Joseph's grandmother also believes that the change of weather causes coughs and colds stating that the children 'get cold from the cold or sometimes they get it when the cold changes

to the hot season'. Joseph's brother believes that colds are caused by being outside in the wind, and shared his knowledge that when you have a cold 'you sneeze and sometimes cough'. In order to prevent coughs and colds adult family members instruct Joseph to keep warm when it is cold and not go out in the rain. He is told to wear socks and have his hat on.

In making sense of the causes of illness Joseph referred to his favourite activities at home. In one example Joseph spoke of getting sore ears after spending time on his playstation. Another favourite pastime of Joseph's is watching movies. In reference to a photograph of a girl lying down with her hand on her forehead, Joseph told the following story:

Joseph:	She's gonna be die
Caroline:	Oh really? She's going to die?
Joseph:	Yeah I know
Caroline:	Is she?
Joseph:	Yeah she's gonna bleed. Somebody, {some guy} somebody was going to kill her
Caroline:	Oh really/
Joseph:	Yeah, I know that…Somebody's going to kill her. Then somebody's gonna get a, get a, get a killing sword and she, they gonna cut the neck.

In follow-up communication with Joseph's family, Joseph's grandmother immediately linked Joseph's 'killing' reference to his interest in movies.

Following the storybook process Joseph and his mother read through Joseph's storybook together and Joseph's mother asked her son about the meaning of some of the content in the book. During feedback from Joseph's family regarding the storybook, Joseph's mother expressed her happiness that Joseph had remembered the illness prevention messages and behavioural rules regarding illness causality that are regularly communicated within their family. With reference to the storybooks of both of her children, Joseph's mother commented 'they have remembered ninety percent of what I have told them'.

Case 2 - Natalia and her family

Natalia is a four-year-old girl who lives with her parents and two older brothers (aged 8 and 9 years). The family identify as 'Kiwi' (Pakeha/European). Natalia's father emigrated from the UK 11 years ago along with his family, and Natalia's mother was born in New Zealand. Natalia and her two brothers were all born in New Zealand. The children spend a great deal of time with both sets of grandparents who all live nearby and Natalia is regularly in the care of her grandparents during certain times of the week. Both grandfathers experience chronic illness which has led to loss of limbs, or loss of the use of limbs, and consequently significantly affected their mobility. Natalia's parents identify as having 'no religion' with her mother commenting 'we're not religious at all, in any sense really'. Likewise Natalia's grandparents do not identify with a religion. Natalia's father works in the building trade and her mother works in healthcare. All family members speak English.

Natalia and her family members have had substantial experience of illness. Natalia has experienced recurrent ear infections and throat infections, and has also experienced coughs/colds, a tooth extraction, and a head injury sustained during a fall from a vehicle onto concrete. Natalia's family notes that Natalia has very high pain tolerance levels. Typically she does not tell her family that she is sick and carries on as normal until she has a fever or other symptom that is obvious to her family. Natalia has had several surgical procedures for her ears and teeth, and frequently visits family members when they are inpatients in hospital or receiving care at home from district nurses. Family members describe Natalia as inquisitive explaining that she is very interested in medical procedures and equipment, and watches the district nurses closely as they attend to her grandparents. Natalia often asks her family members questions about their illnesses and the family notes that Natalia directs her questions to the family member who is ill rather than asking another member of the family. Illnesses experienced within Natalia's family include: diabetes, motor neuron disease, Guillain-Barre syndrome, loss of limbs, ear infections, attention deficit disorder, broken bones, embedded objects, asthma, skin conditions, and inflammatory bone disorder.

The illnesses that Natalia mentioned during the storybook process include: asthma, sore tummy, sore teeth, sore throat, sore eyes, 'spew up', hot head, and a fall. Natalia also

talked about death. The majority of Natalia's stories featured several illnesses in one story. Natalia's meaning-making regarding illness causality reflected her own illness experience and that of her family members. Her narratives also reflected the illness prevention messages and behavioural guidelines shared within her family.

During the storybook process Natalia mentioned that it is important to stay inside and not get wet feet when you have asthma. Family members instruct Natalia to wear warm clothes in winter and not get wet. She is told to wear a woolly hat when it is cold or windy, and a raincoat when necessary. Natalia's mother tries to prevent Natalia from 'running around in bare feet' so that she doesn't get sick. Natalia's mother also reminds her daughter and her sons to wear shoes when they go out as they often attempt to leave the house barefoot. She regularly says to all of her children: 'Wear your shoes to school. If you take them off at school I can't do anything about it but you wear them to school, you wear them home'. To help prevent the children from getting sick Natalia's parents bring the children inside before it gets cold, especially before it starts to get dark, saying 'Inside now... it's too cold outside'.

Natalia commented that she herself has asthma and provided the following causal explanation for asthma: 'Because if you eat too much ice-cream or stuff you get asthma. I got asthma because I cough all the time and I'm sick 'cos the bugs keep on kicking my throat'. Curiously, Natalia's mother reports that while Natalia's grandfather has severe asthma, Natalia does not have asthma herself. Natalia's mother suspects that Natalia may be referring to 'the link between dairy food and asthma' in terms of 'getting congested'. During an interview undertaken before the storybook process Natalia's father shared his belief that in most cases the infections that affect Natalia are 'bug oriented' and he believes that antibiotics are the only thing that's 'going to kick it…kill the bugs'.

Natalia spontaneously referred to the illnesses of family members and the behavioural causes of such illnesses. When asked to explain why a child in a topic photograph was unwell, Natalia recounted the story of her brother's illness event involving a bunk bed:

> Caroline: So this person's feeling sick, they're feeling a bit unwell, they're a bit ill. I wonder what's happened to her do you think?

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Natalia:	I don't know [2] I know!
Caroline:	Yep?
Natalia:	Last time when we had our top bunk, when I was sleeping. We were sleeping when we were big, I was big and then I started looking and then ... on the bunk ... Last time when we were sleeping we went in Mum and Dad's bedroom and they sleep in the kids lounge and now they don't anymore and we had a top bunk and (brother) spewed on the top bunk and he fell down and bonked his head so hard and he cried and Dad put this bar so we can hold on. 'Cos I know, when you stay in bed for a while you get real hot.

In sharing this illness story involving her brother Natalia provides details of the context, characters, behaviours and outcome. Natalia finishes her story by emphasising her awareness of her own knowledge of the subject 'Cos I know, when you stay in bed for a while you get real hot.' Natalia's 8-year-old brother (who had fallen off the bunk and 'bonked' his head) also referred to a similar incident in one of his storybook narratives.

Natalia incorporated cautions into her illness causality constructions and viewed these messages as conveying important information that others needed to know. Prior to the storybook process Natalia was playing with a toy ambulance at kindergarten and informed me of the importance of having smoke alarms in your house. Natalia spontaneously spoke about how she and her family had driven past the house where two children had died. She then went on to say that you have to have smoke alarms in your house. Natalia's mother reported that Natalia and the rest of the family had discussed the details of the recent tragedy in their neighbourhood.

In constructing narrative accounts Natalia drew on illness prevention messages that are regularly communicated within her family. Telling a story about a child in a topic photograph, Natalia commented:

Natalia:	Her eyes are down low. That means her eyes are sore.
Caroline:	Her eyes are sore, ok. And how did she get the sore eyes do you think?

Natalia:	When you rub them too much they get so ... they get so blinky and ... You don't rub them when they are sore, you blink them when they are sore…
Caroline:	Have you had sore eyes before?
Natalia:	Oh yeah. I keep on rubbing them…
Caroline:	Do other people in your family have sore eyes sometimes?
Natalia:	No. Remember when you cook these bubbles go up on your eyes eh? And they're sore eh? Remember the bubbles hurt you when you cook in the pan and you cook and it hurts eh?
Caroline:	Ah, ok. And what's in the pan when the bubbles ... ?
Natalia:	We ate some chicken noodles and we had some ham sandwich.

In this extract Natalia explains the link between the character's body language and the character's sore eyes employing the phrase 'that means' thus providing additional information and communicating her own meaning-making. In reply to the question about how the character came to have sore eyes Natalia provides the instruction 'you don't rub them when they are sore, you blink them when they are sore'. Spontaneously repeating the caution Natalia communicates the importance of the information being shared and stresses the need to 'remember' the information. At the close of this extract Natalia links the narrative to her own world with the comment 'we ate some chicken noodles and we had some ham sandwich'. Following the interview with Natalia, her mother commented that she has told her children to stay back from the frying pan explaining the height of the pan and how the fat could 'go into their eyes' and hurt them.

The privileging of family stories to explain the cause of illness was evident in the narrative accounts of both Joseph and Natalia and also featured strongly in the narratives of the other young children in the study with all of the preschoolers frequently making direct or indirect references to illness experiences and health messages within their families. Additionally, while the four-year-old children were the core unit of study, the older siblings also drew on family stories to explain illness. One notable exception to these results was found in the example of a young child referring to her friend's experience of chicken pox when explaining a character's illness. The

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participant child had not experienced chicken pox herself nor witnessed family members' experience of chicken pox and drew on her broader social world to explain the nature and cause of the illness. This child referred to her family context in all of her other narratives of illness causality. Thus, analysis of young children's narrative accounts indicates that the experiences, routines and expectations regarding health and illness that are communicated within the everyday context of the family, and based on family members' beliefs and values, have a significant bearing on young children's meaning-making regarding illness causality.

7.4   Situating meanings within family understandings and experiences

While the notion of children drawing on their family contexts to make sense of illness has been suggested in previous studies, to date, this phenomenon has not been explored in research with preschoolers and their families. Focusing on 8-12-year-olds' understanding of asthma, Rudestam et al. (2004) found that even though all participant children had been exposed to the same asthma education programme, children provided different explanations for asthma based on their family context. In a study of the illness causality explanations of Chinese children aged 3-5 years, Zhu et al. (2009) found that the majority of children's responses were in line with folkbiology and, in particular, the illness prevention messages often communicated by Chinese parents to their children, however, the families of participant children were not included in the research. By interviewing both young children and their family members, the current study was able to illuminate the relationship between young children's illness causality concepts and their particular family context.

During the storybook process four-year-old participants regularly referred to illness experiences and practices within their family. Both direct and indirect experience of illness featured in children's meaning-making. In some cases children had experienced the illness themselves, other times children had observed the illness experience of a family member. Behavioural actions of self or others and subsequent ill health were significant features of young children's meaning-making and their illness causality narratives reflected family practices especially with regard to illness prevention. Children referred to illness prevention messages communicated within their family, and the health and safety routines carried out in the family home. In this way, the study

generated valuable data regarding young children's views of illness causality within the family context. However, I acknowledge that these data were gathered over a relatively short period of time with a small sample of four-year-old participants. An ethnographic study with a larger and more gender-balanced group of young children could have led to an even richer data set.

The behaviour-based understandings and related family practices highlighted in young children's narratives signal the importance of family socialisation in children's understandings of illness. While it could be argued that children's behaviour-based explanations are due to inherent understandings rather than the result of children's participation in family life, the clear link between children's explanations and particular family experiences and routines suggests otherwise. The family practices reflected in children's narratives were based on the illness causality beliefs of family members and embodied family expectations and goals regarding the health education and care of young children. As noted by Brooker (2011), 'the 'cultural' artefacts and practices of communities are only the outward symbols of the belief systems which run *invisibly* through family life, and which contain the families' concerns for children's future outcomes as well as for their present well-being' (p. 144). Family members transmit cultural beliefs regarding illness causality both explicitly via direct instruction, repeated reminders and instigation of behavioural rules, and implicitly via everyday conversations and modeling of behaviours. Cultural expectations regarding children's understanding and behaviour, and the roles of family members in children's learning of health information and practices are also communicated. Educators and health practitioners need to be aware of the impact of health messages shared within the family, and develop health education and support programmes that recognise prior experiences, exchanges and understandings within the family context.

An awareness of how preschoolers create meaning about illness causality within the family context is likely to aid the development of health education programmes that are both appropriate to young children's understanding and effective in encouraging the adoption of illness prevention strategies and healthy lifestyles. Young children's acquisition of illness causality concepts through their family underlines the need for practitioners to shift their focus from reliance on maturational models of children's conceptualisation to an acknowledgement of the sociocultural factors impacting upon

children's knowledge construction. While children's understanding does increase with maturity and developmental issues are important, healthcare providers in primary and secondary care situations must be aware of the potential variety of understandings that even young children already hold due to their active involvement in family life. Because children engage in health-related practices that are based on the values and priorities of family members (Poutanen, Lahti, Tolvanen, & Hausen, 2006), it is vital that practitioners engage with families when providing health education and support, fully appreciating family members as both valued interpreters and essential partners in the education of young children.

With regard to the broader social context, practitioners need to recognise that the beliefs of children and their families are inextricably connected to societal beliefs and values including social and political agendas (Ravindran & Myers, 2011). Several of the illness causality narratives shared by the young children in the current study featured personal responsibility for maintaining health and avoiding illness. In their stories, children referred to family behavioural rules for avoiding illness and emphasised the importance of adhering to these rules. This focus on behaviour-based explanations has been noted by other researchers (Myant & Williams, 2005; Zhu et al., 2009) and prompts questions regarding 'health consciousness' and notions of responsibility regarding illness prevention that are communicated in contemporary societies (see Crawford, 2006). As well as acquiring health beliefs from their families, young children may acquire initial understanding of personal responsibility for their own health (Peltser & Protusson, 2003) which reflects a current emphasis on personal responsibility for illness. The present study highlights the potential impact of societal factors on children's conceptualisation but is limited by the small data set. I suggest that future research focuses on the relationship between children's meaning-making regarding illness and the wider social context in which families are located. Broadening the research focus to explore other socially-based understandings of health and illness by young children, for example, meaning-making regarding chronic illness and mental health, could also be helpful to practitioners.

Findings of this study indicate that young children acquire understandings of illness causality via their participation in family life. Rather than making assumptions based on a child's age, practitioners need to find ways to elicit children's own meanings

regarding health and illness. Such understandings are likely to be behaviour-based and reflect family and cultural values. Although arguments exist for the family having less influence on children's understandings in contemporary society as a result of children's exposure to health concepts from a number of different sources (see Christensen, 2004), current findings indicate that the family remains the primary context for preschoolers' understandings of illness. To provide effective health education programmes and support for young children and their families, it is essential that children's existing understandings and associated family practices are utilised as the context for future learning, and that programmes are developed and implemented in partnership with families.

7.5   Summary

Analysis of the narratives of young children and their family members indicates that four-year-old participants were drawing heavily on their family contexts to make sense of illness. To a large extent, children's meaning-making reflected the illness events, health messages and practices within their families. Narrative data suggests that children's participation in family life contributed greatly to their meaning-making about the causes of illness. In particular, children's active engagement in family conversations, activities and routines related to health and illness in a variety of settings appeared to have a significant bearing on their illness causality constructions. In the following chapter, these findings regarding young children's meaning-making within the family context will be considered in relation to the aims and significance of the study. Findings will also be discussed with regard to implications for research and practice.

Chapter Eight – Conclusions

8.1   Introduction

Findings of the current study reveal the various ways in which young children draw on their family contexts to make sense of illness, and in doing so, highlight the significance of informal learning in the family context. Four-year-olds' explanations were largely behaviour-based and reflected the illness experiences, health messages and behavioural rules within their families. Such a relationship between behaviour-based notions of illness causality and participation in family contexts has important ramifications for the development and delivery of health education programmes. This final chapter locates the findings of the study within the overall research inquiry, and directs attention to the implications for future research and practice with young children and their families.

The chapter begins with an overview of the findings in relation to the inquiry question and the specific aims of the research (section 8.2). Subsequently, key arguments of the study and the contribution of the thesis to the field of knowledge are summarised (sections 8.3 & 8.4). The implications of the findings for research and practice are discussed in section 8.5, and specific strategies for use in applied settings are provided in section 8.6. In the following sections, the strengths and limitations of the study are outlined (section 8.7), suggestions for future research are provided (section 8.8), and final reflections are shared (section 8.9). Lastly, the chapter provides summary statements for this research journey.

8.2   Aims of the inquiry

Analysis of narrative data gathered in the present study emphasises four-year-old children's ability to tell their own stories about illness and highlights the ways in which children's observation and engagement in family discussions and activity contributes to their meaning-making regarding the causes of illness. This section provides an overview of findings as they apply to the specific aims of the research.

Seeking to examine the embeddedness of young children's illness causality concepts within the sociocultural context of the family, the current research aimed to explore young children's meaning-making regarding illness causality, illness causality

constructions within the young child's familial context, and social processes within the family context involved in meaning-making regarding illness causality. Young children's illness narratives, elicited during the storybook process, featured predominantly behaviour-based notions of illness causality in which the behavioural actions of self and others were viewed as the cause of ill health. To a large degree, children's illness causality constructions reflected the illness experiences, health messages and behavioural rules for preventing illness that were communicated in their families.

Children's participation in illness events, healthcare routines, and daily activities within their families contributed significantly to their meaning-making about the causes of illness. In collaboration with family members, children engaged in processes such as observing, questioning, relaying, repeating and re-enacting illness experiences and health information. In this way, children actively sought to understand the causes of illness via their participation in family practices. Such practices embodied the illness causality beliefs of family members, along with family expectations regarding preschoolers' health/illness understandings and health behaviours.

8.3   Key arguments

The central argument of this thesis is that young children's meaning-making about illness causality is a function of their participation in particular family practices related to illness. As such, children are constructing illness understandings via their experiences within the family rather than through maturational processes alone. Furthermore, as the family is the primary sociocultural context for preschoolers' illness understandings, the health messages communicated within the family are very powerful for young children. Four-year-old children's illness causality constructions signal folkbiological understandings of health, i.e. everyday/lay understandings within different families, and this prior knowledge of illness causality, gained via informal learning within particular family contexts, needs to be acknowledged and utilised as the basis of health education programmes. By eliciting children's spontaneous views about the causes of illness and working in partnership with families, health education programmes can be developed that have specific relevance and meaning for individual children and their families.

8.4 Contributions

The present study makes several contributions to the literature regarding young children's illness causality understandings. First, rather than focusing solely on the nature of young children's illness causality conceptualisations, as is the case with much of the previous research in the field, this study locates children's knowledge within the family as a community of practice. In this way, the study adds to recent research initiatives examining children's knowledge acquisition within everyday contexts (e.g. Reeve & Bell, 2009; Rudestam et al., 2004) and further extends this line of investigation by working with younger children and their families. Contrary to the expectations of traditional cognitive frameworks (see Kister & Patterson, 1980; Perrin & Gerrity, 1981), four-year-old children's explanations for illness were largely behaviour-based and reflected folkbiological understandings. Such findings are in line with more recent findings of Zhu et al. (2009) and Myant and Williams (2005), and add weight to the notion that children acquire knowledge within sociocultural contexts (see Rogoff, 2003; Vygotsky, 1978). In the present study, children's explanations reflected the illness experiences and health messages within their families thus extending the argument that children's understandings are a function of their informal learning via everyday activities within the family rather than the result of maturational processes alone (see Callanan, Cervantes, & Loomis, 2011).

Second, the current study breaks from the tradition of experimental research seeking children's predictions and featuring forced-choice responses or other preselected measures (see Buchanan-Burrow et al., 2004; Kalish, 1996), to access children's spontaneous views regarding illness causality. Recent literature suggests that young children's naïve biological reasoning may be better revealed by children's own explanations rather than by their predictions (see Legare et al., 2009). In the current study, children were encouraged to freely communicate their own views of illness rather than having their responses restricted to predetermined categories or frameworks. In this regard, the study is aligned with the work of Zhu et al. (2009) who also sought children's spontaneous explanations for illness.

Third, this research gives voice to four-year-old children's everyday meanings about the causes of illness when much of the existing research seeking children's own

understandings regarding health and illness focuses on children of school age (e.g. Rudestam et al., 2004). The current study demonstrates that four-year-old children are very capable of sharing their own thoughts about the causes of illness, and thus supports notions of young children as active meaning-makers with the ability to participate fully in research endeavours (see Darbyshire et al., 2005; Smith, 2002).

Additionally, this study makes a significant contribution to the methodological literature regarding research with young children by utilising a novel storybook process to elicit four-year-olds' narratives of illness causality. Previous studies investigating preschoolers' perspectives about various topics have also utilised media such as stories (e.g. Carr, 2000) and photographs (e.g. Smith et al., 2005) to some degree. However, the current research deviates from these studies by inviting children to construct and document their own narratives of illness causality utilising photographic media. Combining interviewing with the optional task-based method of creating a storybook using photographs and art materials facilitated children's engagement and helped to make the process familiar and meaningful for young children. The storybook approach generated substantial data thus signaling that talking whilst engaged in such an activity appears to be a useful means of eliciting young children's narratives.

Drawing on literature across a wide range of disciplines, this study combines sociocultural notions of learning and development with literature regarding children's illness understandings thereby extending the existing knowledge base regarding young children's meaning-making about illness causality and making an original contribution to the field of inquiry. In offering a social interactional interpretation of the illness narratives of young children and their families, the study provides new insights regarding children's meaning-making via participation within the family context. Specifically, findings add credence to recommendations provided in relation to older age-groups regarding utilisation of children's existing health understandings, constructed within particular family contexts, as the basis of health education programming (see Reeve & Bell, 2009). Young children need to be given the opportunity to express their own understandings about health and illness so that practitioners can build on children's prior knowledge and develop programmes that are relevant and meaningful in the context of children's everyday life.

8.5 Implications

Findings of the current study have significant implications for research and practice with regard to young children's ability to express their own views of illness causality, their behaviour-based explanations for illness, and their meaning-making about illness via participation in family life. Consequently, this section focuses on the importance of listening to children's stories about the cause of illness, attending to the various ways in which their meanings are constructed as a result of their involvement in family life, and working in partnership with families to provide health education and psychosocial support based on children's existing understandings. The relationship between young children's illness causality constructions and engagement in their particular family contexts highlights the need for researchers and practitioners to attend to cultural variability arising from participation in social worlds rather than relying on maturational models of illness understandings.

The current research demonstrates that young children are highly competent collaborators in the research process and are very capable of communicating their views regarding health and illness. Furthermore, rather than following a prescribed pattern, children's views of illness causality differ according to their particular sociocultural contexts. Consequently, researchers and practitioners are encouraged to afford young children the opportunity to share their own explanations for illness, unrestricted by predetermined response categories and maturational frameworks. Finding appropriate and effective ways to access preschoolers' own meanings about health and illness needs to be a priority for those working with young children. While some researchers emphasise the importance of listening to children's thoughts and ideas about illness ahead of the need for children to understand the information imparted by practitioners, oftentimes maturational models of children's illness understandings are still used to guide practice (see Koopman, Baars, Chaplin, & Zwinderman, 2004). Instead of making assumptions regarding understandings based on predictive models, health practitioners and educators are encouraged to appreciate the variability of illness causality constructions and access children's own meanings.

Contrary to the expectations of traditional models, the behaviour-based explanations evident in young children's illness narratives suggest the existence of folkbiological

understandings of health and illness. Specifically, children's illness causality constructions largely reflected the illness prevention messages and behavioural rules within their families. Study findings suggest that the different health/illness experiences, beliefs and practices within families may lead to significantly different understandings of health and illness, and that these ways of knowing are entwined with community and societal factors. Consequently, findings provide support for sociocultural theories of learning and development, and signal the need for researchers and practitioners to attend to children's informal learning within the family. Having an awareness and appreciation of children's prior knowledge gained within the family will place practitioners in a better position to be able to develop programmes that are culturally-relevant (and therefore meaningful) to young children and their families.

Findings highlight children's engagement in informal learning about health and illness within their family group and the need for researchers and practitioners to explore this avenue further. As noted by Callanan et al. (2011), 'children in all communities engage in informal learning in their homes, learning about a variety of domains through everyday parent-child conversations as well as observation and participation in culturally valued activities' (p. 649). Learning via everyday experiences in the family has been documented by several authors (see Cumming, 2003; Dunst, Hamby, Trivette, Raab, & Bruder, 2000). Such learning is frequently related to children's interests, ideas, and social identity (see Goodnow, 1990; National Research Council, 2009). Children's questions about family routines, activities or experiences, often prompt family conversations about health and illness as young children pursue causal explanations for their 'why' questions (see Frazier, Gelman, & Wellman, 2009).

The particular cultural beliefs and practices within the family group help to determine the health topics that are discussed (or not discussed), the responses to health/illness questions and events, and the health routines and rituals practised by individual families. As highlighted by Haden (2010), from a sociocultural perspective 'learning processes and outcomes can be expected to vary with the knowledge and interests children and their parents bring to an experience, and the activities and conversations they engage in during and afterward' (p. 63). The way in which health-related practices are an integral part of everyday family life as families balance both health-related and non health-related goals of individual family members and the family group is also highlighted in

the ecocultural perspective of family (Christensen, 2004). Such an approach is aligned with aspects of both sociocultural theory and ecological theory (Plowman & Stevenson, 2012), and refers to the ecocultural pathways that are established for children by cultural communities. According to Weisner (2002), such pathways feature everyday routines that are made up of cultural activities. Thus, children's participation in family life impacts children's health understandings in a myriad of different ways and provides the platform for future learning about health and illness.

The current research supports the notion that families mediate young children's learning. Those seeking to understand young children's meanings regarding illness causality need to appreciate that children develop 'funds of knowledge' (see Gonzales, Moll, & Amanti, 2005) that are useful in particular family contexts. These funds of knowledge reflect the types of understandings that are valued in different cultural communities. In the present study, four-year-old children's narratives of illness causality reflected the particular funds of knowledge within their family in the form of references to health and safety rules, routines and reminders. Engaging in a process of 'scaffolding' (Wood et al., 1976), older family members provide 'supported learning situations' (Tinsley, 2003) that assist young children to reach a higher level of knowledge and competence in the particular tasks that are valued by the family. A practitioner's ability to tap into these funds of knowledge when providing health education and support for young children and their families is likely to greatly enhance children's learning. By making material more meaningful in terms of children's prior knowledge, programmes will be more effective in increasing understanding and therefore promoting health.

Findings of the current study indicate that the health messages communicated both implicitly and explicitly within the family have special significance for preschoolers. As noted by Holland, Mauthner, and Sharpe (1996), 'the family is clearly a complex site for the reception, transmission and communication of health information' (p. 83). Furthermore, families align their socialisation practices with sociocultural values (Tinsley, 2003). Family members' decisions regarding a topic's suitability for discussion within the family and whether or not children's questions and interests regarding health and illness are encouraged or discouraged is worthy of attention (see Goodnow, 1990). Furthermore, families differ in their communication of health

information with some families engaging in storytelling, and others favouring explanation or observation (National Research Council, 2009). Of special note is the fact that in cases where families (or indeed practitioners) deem it inappropriate for children to be given particular health information, whether based on age/stage assumptions or personal beliefs, young children will still attempt to make sense of the world based on their knowledge and experience (see Rushforth, 1999). Additionally, as young children are highly attuned to the talk amongst adults in their families and communities, their awareness of such discourses also serves to shape their understandings (Waxman & Medin, 2007).

The current research argues that health education and support programmes for young children need to be located within family experiences, interchanges and meanings. The importance of educators and practitioners capitalising on children's learning via informal contexts is currently emphasised in fields of early childhood education (Hedges, 2007), and health education with older children (Reeve & Bell, 2009). Such notions now need to be acknowledged with regard to the health and illness understandings of young children. Being aware of the rich and diverse knowledge, experiences, and interests of young children within their respective families, communities and cultures - and taking a positive approach to these aspects - needs to be a priority for educators (see Hedges, 2007).

Acknowledgement of the key role of the family context in young children's meaning-making requires researchers and practitioners to engage with families towards developing programmes and services that are family-centred and directly relevant to children's family life; a working partnership between families and health educators/practitioners. As well as improving the viability of health education programmes, making interventions specifically relevant to family life may result in children being able to understand health information at an earlier age (see Borzekowski, 2009). Furthermore, the current study strongly endorses the Vygotskian (Vygotsky, 1962) principle of discovering children's existing knowledge before attempting any intervention. It is paramount that practitioners acknowledge the diversity in children's understandings based on children's particular sociocultural contexts and build on existing knowledge and family practices in their interventions. With reference to the school curriculum, Rushforth (2006) highlights that children's diverse understandings

significantly limit the utility of maturational models of illness causality. Findings of the current study indicate that this notion also applies to younger children. Four-year-olds' participation in informal, everyday activities and interactions within their particular family contexts has a major bearing on children's health/illness understandings and must be utilised as the basis for future research and practice in health education.

8.6   Recommended strategies in applied settings

In this section I discuss the various ways that study findings might be applied to daily practice and describe specific strategies that practitioners such as clinicians, educators and counsellors can use in their work with young children in health, education, and support services. Central to each of these strategies is the importance of working in collaboration with children, families and communities having developed positive relationships built on trust and mutual respect. In this section I argue that it is essential that children's rights are upheld at all times (see Children's Hospitals Australasia, 2011; United Nations General Assembly, 1989), and that every interaction and intervention is designed to meet the specific needs of the individual child. I also put forward reasons why children must be viewed within their particular sociocultural contexts including their families, social networks, wider communities, and the health-promoting setting itself. By listening for children's meanings, working in partnership with families, providing appropriate scaffolding, and engaging communities, practitioners can develop meaningful interventions that are both reflective of, and responsive to, children's everyday lives.

Listen to children's stories
To ensure that work with children, or any intervention aimed at children, is relevant and therefore effective, it is paramount that practitioners listen to children's stories about illness. Practitioners need to invite children to share their thoughts about the causes of illness, and take the time to listen to children's explanations for why they, or their family member, became ill; why people, in general, get sick; or how to keep healthy, before providing information or undertaking any psychosocial intervention. The Charter on the Rights of Tamariki Children and Rangatahi Young People in Healthcare Services in Aotearoa New Zealand (Children's Hospitals Australasia, 2011), applying to all children in healthcare services including children participating in health education

programmes, states that: 'every child and young person has a right to express their views, and to be heard and taken seriously' (p. 8). This right has special significance for young children in New Zealand because, to a large degree, preschoolers' views and concerns are not acknowledged by the nursing fraternity even though preschoolers are the most frequent users of paediatric healthcare (Watson, 2008). Likewise, in the Australian context, Kelly, Jones, Wilson, and Lewis (2012) argue that children are silenced in healthcare settings as practitioners fail to seek children's views, and dismiss children's comments.

By eliciting children's stories of illness causality via conversation, play, art or other expressive means, practitioners can gather vital information to enable them to work effectively with individual children. Indeed, it is the child who is the most accurate source of information about his/her current understandings and present needs (see Hollon & Skinner, 2009). Consequently, children must be given the opportunity and the means to talk in consultations even if some children choose not to take up this opportunity. As stated in the charter on children's rights (Children's Hospitals Australasia, 2011), children may need special assistance to express their views, and practitioners must make efforts to understand children's communications in their various forms. Listening to children's perspectives is also a priority within the UK's 'National Service Framework for Children, Young People and Maternity Services' (Department of Health, 2004): 'we want to see professionals communicating directly with children and young people, listening to them and attempting to see the world through their eyes' (p. 87).

The importance of actively listening to children's illness stories cannot be overstated. Watson (2008) describes a scenario from his experience as a paediatric nurse in which a young patient's illness story provided medical staff with vitally important information ahead of the child's surgery. Watson had asked the child's mother if her son had any allergies and she had said no. However, the boy remembered that he had experienced a tingling feeling in his lips while he was blowing up a balloon for a birthday party. Fortunately, the child's story prompted Watson to test for a latex allergy. The tests revealed that the child was indeed allergic to latex, and special care needed to be taken during the anaesthetizing process. Similarly, in the current study, children remembered illness events that other members of the family had forgotten, and parents were

surprised by their children's ability to recall events experienced at a young age. Furthermore, in some cases, children have witnessed illness events unbeknown to family members. For example, in an earlier study (McIntosh, 2000), a mother had tried to keep the circumstances of a family member's suicide attempt from her four-year-old daughter but the child had seen the ambulance arrive at the house, overheard a phone conversation, and struggled to make sense of what had happened. In situations where children are not provided with accurate information regarding the cause of illness or injury, children's own attempts to make sense of the situation can lead to increased difficulties for the child. Such scenarios further reinforce the need for practitioners to listen to children's stories.

Work in partnership with families

It is imperative that those working with young children in health settings develop collaborative partnerships with families. An example of such practice is inherent in the family-centred care approach which was developed in the US in the early 1990s to counter traditional models of healthcare (Redsell & Glazebrook, 2010). Within a family-centred approach, families are involved in the planning, delivery and evaluation of healthcare for children. Yet, as noted by Kelly et al. (2012), even though the concept of family-centred care has been espoused within paediatric nursing over the last few decades, oftentimes the concept is not applied in practice. While family-centred care is generally considered best practice (Redsell & Glazebrook, 2010), some commentators argue that there is a lack of evidence for the effectiveness of the approach compared to traditional, individualised care (see Shields, Pratt, Davis, & Hunter, 2007), and query the applicability of the model across different cultural contexts (Shields, 2010). However, regardless of the current lack of data regarding the effectiveness of family-centred care, and possible tensions in meeting the needs of children, families and medical personnel (see Kelly et al., 2012), practitioners need to recognise that the family is fundamental to children's lives (Children's Hospitals Australasia, 2011) and appreciate that the family's participation in cultural communities shapes the family's health behaviours, routines and rituals (Rollins, Bolig, & Mahan, 2005). Acknowledging family strengths and priorities is crucial, as is developing a supportive relationship in which families feel able to share important information about both the child and the family itself (Bell et al., 2009).

Practitioners are urged to listen to family stories of health and illness, and respect family members' knowledge, experience, views, values, preferences and decisions. Such respect for families and their particular characteristics, beliefs and culture is another key component of the charter on children's rights (Children's Hospitals Australasia, 2011). Additionally, practitioners need to avoid making assumptions about family understandings and priorities keeping in mind that some family members may differ in their perspectives regarding the causes of illness. Assessments and interventions should be undertaken in collaboration with families, with particular consideration to family needs and the possible impact of interventions on family members (see Turner, 2009). Furthermore, as family involvement in health education interventions increases the likelihood of successful outcomes (Drummond, Drummond, Dollman, & Abery, 2010), as much as possible families should be encouraged to participate in the design, delivery and evaluation of health education programmes and psychosocial interventions.

When working in partnership with young children and their families, effective communication skills are essential. In an earlier study (see McIntosh, 2000), a father shared his concerns about not being able to answer his four-year-old daughter's questions about her newly diagnosed chronic illness. A clinician had explained the cause of the child's illness to the parent but due to different first languages and the use of medical jargon, the father had not understood the explanation and had felt too embarrassed to ask the clinician to explain it again. As highlighted by Klinzing and Klinzing (2009), practitioners need to engage in the following communication strategies: keep explanations as uncomplicated as possible, refer to listeners' experiences, check for understanding, give families the opportunity to ask questions, repeat key messages, provide written information outlining the key messages, and engage translators whenever necessary.

Provide appropriate scaffolding
Having established supportive relationships with young children and their families (in some cases over a very short period of time due to the nature and demands of the clinical setting), practitioners need to provide appropriate scaffolding for young children's learning. Strategies such as engaging children in play and observing their responses, asking children open-ended questions, giving children the time and opportunity to ask their own questions and have these questions answered, and checking

for understanding, enable practitioners to assess the child's 'zone of proximal development' and identify the scaffolding required to assist children in their learning. For example, a young child who was diagnosed with eczema at the same time as he visited the doctor for his meningococcal b vaccination, talked to me about how the vaccination would prevent him from getting eczema (McIntosh, 2010). Such a scenario highlights the potential for children to develop misconceptions regarding health and illness, and illustrates the importance of taking the time to explore children's understandings. Every child has a right to health information in a form that they can comprehend, and practitioners need to view children as having the capacity to process such information (see Children's Hospitals Australasia, 2011; Kelly et al., 2012).

For health education programmes to be effective, practitioners need to encourage children to relate new material to their prior understandings, interests and life experiences (National Research Council, 2009). Strategies such as considered use of language, repeating information, encouraging children's questions, and using concrete tools can also greatly assist children in their learning. Following the health education intervention, it can be helpful to assess children's understanding of the new material by asking children: 'What surprised you the most?', What do you think was the most important bit?', or 'What would you tell your friend?', rather than asking children to repeat the information back to you (National Research Council, 2009).

Engage with communities

To enhance the effectiveness of health education programmes for young children and their families, practitioners also need to work in partnership with cultural communities. The importance of culturally-responsive engagement with communities and culturally-specific interventions is currently highlighted in the health promotion literature (see Drummond et al., 2010; Tse, Laverack, Nayar, & Foroughian, 2011). Practitioners are encouraged to develop collaborative relationships with cultural communities, listen to what particular communities want and need from public health services, and discover how these groups would like to be supported to initiate and deliver their own health education programmes. Community-based health education initiatives that are designed and undertaken in partnership with cultural communities are able to reflect the current interests, knowledge, concerns, goals and practices of particular social networks, and thus have special relevance to children's daily lives and their local environments

(Christensen, Twetman, & Sundby, 2010; National Research Council, 2009). Consequently, practitioners in community-based programmes need to be culturally-competent with a willingness to learn from cultural groups and the ability to draw on a repertoire of practices and tools including questioning, materials and contexts to assist learners to build on their everyday knowledge, skills, language and experience (see National Research Council, 2009).

Children, families and cultural communities all need to be engaged if health education initiatives are to have meaning and relevance for young children. All of these groups need opportunities to tell their illness stories in their own time and in their own way safe in the knowledge that their beliefs, values and practices will be respected, and that their particular needs, interests and concerns will form the basis of health education programmes and psychosocial care. Furthermore, practitioners must view each child in the context of his or her family and the wider community, and ensure that programmes and interventions both draw from and expand upon children's everyday understandings within various sociocultural settings. As highlighted by Scratchley (2004), 'adults need to listen to what children are saying so that health education is based on the real issues and experiences in the lives of the children they teach' (p. 111).

8.7   Strengths and limitations

One of the major strengths within this body of work concerns its ability to access four-year-old children's own meanings about illness causality whilst also engaging families in the narrative process. The storybook method, incorporating photographic media and art materials, was effective in creating and maintaining children's interest and engagement in the topic, and proved to be an efficient means of eliciting children's illness narratives. Additionally, in-depth interviews and follow-up communication with children and their family members proved invaluable to the inquiry. However, on reflection, some photographs appeared to be more effective than others in stimulating children's explanations for illness demonstrating the need for extreme care in the selection of photographs. Also, selecting photographs that depict older adults and incorporating a drawing activity could be useful adaptations to the process that could further enrich the data set and thus extend the knowledge base regarding children's health/illness understandings. Furthermore, this study could have benefited considerably

from being conducted over a longer time-frame with a wider and more gender-balanced group of participants so that greater detail could be obtained. However, taking these aspects into consideration, the method generated valuable data that provides an insight into children's meaning-making within the family context and a useful starting point for further explorations in this area.

Another significant advantage of this research is that it brings together key issues and philosophies across a variety of disciplines with regard to research with families, and learning and development, with a view to expanding the knowledge base related to young children's understandings of illness and identifying subsequent implications for research and practice. Combining a 'child-friendly' approach, based on recommendations espoused in early childhood education research, with key considerations regarding research with families led to the development of a meaningful collaborative method for eliciting and examining children's understandings of illness causality in social context. The notion of children drawing on their family contexts to make sense of illness, previously suggested only in reference to older children, was explored and found to be applicable to younger children.

In assessing the merits of this research, it is important to acknowledge that all interpretations of narrative accounts are necessarily provisional (Squire, 2008). The very nature of the research, my various roles within the research process, and my existing values and biases all impacted upon the research endeavour. I am inextricably enmeshed in the research. In effect, the greatest strength of this narrative inquiry, i.e. being able to access and honour participants' meanings, inescapably produces certain limitations due to the relational component within the construction and interpretation of narrative accounts. However, mindful of this paradox, the data gathered during the course of this research clearly indicates the embeddedness of young children's illness causality concepts within the sociocultural context of the family and the need for researchers and practitioners to explore this area further with a view to creating meaningful health education programmes in partnership with young children and their families.

8.8   Future research

The current study shows that four-year-old children's illness causality constructions strongly reflect the illness experiences, health messages and behavioural rules within their families. Such findings suggest the need for future research regarding young children's conceptualisation of illness causality and the folkbiological understandings within particular family contexts. Specifically, the processes by which children create meanings regarding the causes of illness as they engage in family conversations, routines and activities warrants further investigation. The importance of informal learning experiences within communities of practice and the need to research this area further is highlighted by the National Research Council (2009) which states: 'more research is needed on exactly how children and their social partners negotiate new understandings of science in informal settings' (p. 113). Findings of the present study clearly demonstrate that seeking to determine the various and diverse ways in which children and their families co-construct illness understandings as they participate in everyday family life, needs to be a priority for future research.

As the narrative methodology utilised in the current research was able to successfully illuminate children's meanings about the causes of illness within the family context, future research may benefit from the adoption of a similar approach. The storybook method itself might usefully be applied to other small-scale explorations of children's understandings of health and illness whether they take the form of stand-alone research endeavours exploring children's socially-constructed meanings or satellite studies for broader investigations of children's understandings in social context. Furthermore, the storybook process could easily be adapted to encourage children's sharing about a range of general health issues including hygiene, nutrition, and physical activity as well as specific medical conditions that can affect people across the lifespan.

Findings of the present study also signal the value of exploring children's constructions in relation to the broader communities of practice in which children and their families participate. Conducting an ethnographic study that can examine children's health/illness understandings within the wider sociocultural contexts in which families are located has the potential to further illuminate the dynamic relationship between children, families and the wider community with regard to health education and health promotion.

Appreciating the ways in which young children's meaning-making about the causes of illness is a function of children's participation within their particular family, and the family's participation in multiple communities of practice, has the potential to greatly enhance the development and delivery of health education and psychosocial support for young children and their families.

8.9   Final reflections

Reflecting on the course of this research, I am acutely aware of the cultural nature of this research journey both in terms of the topic of investigation and the research process itself. As aptly described by Rogoff (2003), everything is cultured. Each decision that I made during the course of this research, and my subsequent actions, were necessarily shaped by my own background and values as well as the research context itself. In this section I reflect on key aspects of my learning during the course of this inquiry and highlight the ways in which my experience of this project will likely guide my future research practice.

Of paramount importance to the current study, was a focus on building and maintaining relationship throughout the various stages of the research process, and creating collaborative partnerships with all those engaged in the research endeavour including children and their families, the kindergarten community, ethics committees, and advisors. As outlined in chapter four, the importance of ongoing relationships with all parties involved in the research and allowing plenty of time for all facets of the process including ethics approval, recruitment of participants, working with different communities, and unforeseen delays was vital for the success of the project. On reflection, I experienced a few logistical difficulties with regard to recruitment and timing which could be avoided on future occasions, for example, I missed out on working with a family who would have been ideal participants because, following unforeseen delays, the young child turned five before we had a chance to do the interviews. To avoid this issue in the future I need to ensure that I approach the children coming up to school age ahead of younger children. Furthermore, since completing the fieldwork for my study, I have seen a child's information sheet featuring a photograph of the researcher and I would like to replicate this on future occasions to further strengthen the initial connection between myself and participants.

I have also learnt from my encounters with resources and technology. Having sourced photographs from children's non-fiction books, I had great difficulty in obtaining permission to reproduce these photographs for publication and had not foreseen this issue. Either the photographic repositories required a large sum of money for the purchase of the photographs for publication or the copyright holders could not be contacted. While there are 'free' photo banks available via electronic media, I found it very difficult to find existing photographs that fulfilled the specific criteria required by the research. On future occasions I would use my own photographs and ensure that I had permission from the people portrayed in the photographs to use and publish the images for scholarly purposes. With regard to recording equipment, the digital voice recorder technology worked well in this context as it was more discreet than a tape recorder or video camera, and was able to be operated by the children. However, in the future, I need to remember to regularly check the battery level and also erase the files that have already been downloaded so that I have enough memory for subsequent interviews without having to frantically create space prior to the commencement of an interview. Additionally, I found that using headphones helped me to pick up accents and individual voices in group interviews.

During this research journey the analogy of doctoral study being akin to 'trying to fit an octopus into a jar' often sprang to mind especially as my topic fed into many disciplines and ways of viewing the world. It was critical that I clearly identified the boundaries of this research and remained true to the original focus of the inquiry. I also needed to learn how to write for different audiences including ethics committees, participants, research committees, academics and practitioners in a variety of fields.

Another useful analogy for this research journey was viewing the process in terms of waves – a series of 'highs' and 'lows'. During participant recruitment I would think 'Yes! I've found a family', then 'Oh no, there's a problem', followed by 'It's ok, there's another solution!' I came to realise that I need to 'ride the waves' and not become discouraged. With more time, thought and energy, solutions can be found. Fortunately the 'lows' were short-lived and far outweighed by my commitment and zest for this work.

I have learnt a great deal through this process and am very grateful to all of the families, teaching staff, supervisors, colleagues, cultural advisors, mentors and supporters who have provided help and inspiration along the way. The experience of undertaking this piece of research has firmly reinforced my belief that narrative inquiry is a powerful and effective means of examining children's understandings of the world, and that research with (and for) young children and their families in the area of illness causality conceptualisation has the potential to greatly enhance the health and well-being of preschoolers and their families.

Summary statements

Contrary to expectations of age/stage models of children's conceptualisation of illness causality, the four-year-old children in the current study provided largely behaviour-based explanations for illness that reflected the illness experiences and health messages within their family contexts. Analysis of narrative data indicates that active participation in family life via observation and/or engagement in family practices related to health and illness appears to significantly contribute to children's meaning-making regarding illness causality. This finding signals the importance of accessing children's own meanings about the causes of illness and appreciating the various ways in which children's health/illness understandings are a function of their involvement in their particular cultural communities. Researchers and practitioners are encouraged to further explore the means by which children co-construct health understandings within the informal context of the family, and find ways to utilise children's existing knowledge, experiences and interests in the design and delivery of health education programmes. For children and families to benefit from health education interventions, programmes need to have specific meaning and relevance for children's lives. Thus, rather than making undue assumptions about a child's level of understanding based on maturational frameworks, health educators and healthcare practitioners need to firstly acknowledge that children's meanings are socially-constructed within particular contexts, and secondly ensure that health education and psychosocial support initiatives are responsive to the needs of individual children and delivered in partnership with families.

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Appendices

Appendix 1 Manuscript references

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Appendix 2 Letter to participants (14 November 2006)

[Printed on Massey University departmental letterhead]

14 November 2006

[Participant's name]

[Participant's address]

Dear [Participant's name]

Thank you again for your involvement in my doctoral project exploring young children's views of illness causality in relation to the familial context. I am deeply grateful for your input, and your responses greatly enhance understanding of the topic.

The first phase of the research has produced a wealth of data including a wide variety of responses from both adults and children in the study. Generous sharing of thoughts and experiences has highlighted varying beliefs regarding the causes of illness and the ways in which children draw on their experiences. Marked differences were found in the amount of illness experience and/or exposure between children and between families along with varying sources of information regarding illness causality mechanisms and varying references to preventative strategies. Responses emphasise the social construction of knowledge and highlight the uniqueness of each child and each family. Such data further reinforces the importance of viewing the child within the context of his or her family.

When we met last year I envisaged completing the project within the original timeframe i.e. October 2007. However, with [family circumstances], my studies have had to be deferred for the time-being. Nevertheless, the data collected to date will be put to good use and assist practitioners in their work with young children and their families.

I hope that this letter finds you well, and wish you all the best for the holiday season and the coming year.

With grateful thanks

Caroline McIntosh

Appendix 3 Letter to participants (16 July 2010)

[Printed on Massey University departmental letterhead]

16 July 2010

[Participant's name]
[Participant's address]

Dear [Participant's name]

In May/June 2005 you and your family very kindly participated in my research project about young children's views of the causes of illness based at [name of kindergarten], and I am very grateful for your wonderful sharing and hospitality during this time. As you may recall, with the birth of my two sons and their subsequent health issues, I was unable to continue with the study.

I am now delighted to report that my children's health is well-managed and I have recently resumed work on the project. I greatly look forward to writing up the learning from the research and will send you a summary of the findings once the study has been completed. Should you have any queries you are very welcome to contact me via email: [email address]. You are also welcome to contact my supervisor:

Associate Professor Christine Stephens
School of Psychology
Massey University
Private Bag 11-222
Palmerston North
Phone (06) 356 9099 Ext. 2081
Email: C.V.Stephens@massey.ac.nz

With many thanks and best wishes

Caroline McIntosh

Appendix 4 Letter to participants (23 February 2012)

[Printed on Massey University departmental letterhead]

23 February 2012

[Participant's name]
[Participant's address]

Dear [Participant's name]
I hope things are going well for you all. Thank you so much for helping me with my research project at [name of kindergarten] back in 2005. I am now writing up my study of young children's views about the causes of illness and would like to let you know what I found.

It's been really interesting looking at the stories that children told about getting sick and the way they related illness to their family life. The children were very good at sharing their thoughts about why people get sick. They mainly saw illness as caused by certain behaviours, especially getting sick after not following family rules for staying healthy and preventing illness. Children talked a lot about the health messages and routines in their family and said that it was important that children knew this information.

The study recommends that health educators pay attention to the particular health messages shared within families rather than expecting children to think a certain way based on their age and stage of development. Health education and support programmes need to build on prior experiences and beliefs within the family, and recognise that the views of children and their families are very much tied to beliefs and values in society. Also, the study suggests that young children might understand health information at an earlier age if it is relevant to their family life. Most importantly, health educators need to work with families when providing health education and see family members as essential partners in the education of young children.

If you would like to know more about the study, please email me at: [email address]. You are also very welcome to contact my supervisor:

Associate Professor Christine Stephens, School of Psychology, Massey University, Private Bag 11-222, Palmerston North, Phone (06) 356 9099 Ext. 2081
Email: C.V.Stephens@massey.ac.nz

With many thanks and best wishes
Caroline McIntosh

Appendix 5 Semi-structured interview questions

Draft interview questions for parent/guardian participants

Interviews with parents/guardians of participant children will take place in advance of the interviews with children so that information may be gathered regarding the children's experience of illness, exposure to illness of others and any potentially sensitive issues that the interview may trigger for individual children, for example, recent death of a relative. The researcher will be mindful of these issues when interviewing children and adapt her practice accordingly. Additionally, parents/guardians will be shown the book of photographs so that they will be aware of the nature of the material that will be shown to their children.

The interviewer will initially ask parents/guardians open-ended questions regarding participation in cultural communities, length of time since immigration, roles of participant in the four-year-old child's life, illness experience, medical experience, illness causality beliefs and behaviour, sources of information regarding illness causality, illness prevention strategies, and attitudes towards sharing information regarding illness causality.

The interviewer will also ask parents/guardians to provide information regarding their children's illness experiences using the following questions as a guide:

- What sorts of illness experiences has your four-year-old child had? – Has s/he been an inpatient/outpatient in a hospital? Received emergency medical treatment? Visited patients in hospital? Been aware of the illness of family members?
- When did your four-year-old child have these experiences and how did s/he respond?
- Are there other issues that I should be aware of when interviewing your four-year-old child, for example, recent illness of a relative or friend?
- What sorts of illness experiences has your older child (interview participant) had? Has s/he been an inpatient/outpatient in a hospital? Received emergency medical treatment? Visited patients in hospital? Been aware of the illness of family members?
- When did your older child have these experiences and how did s/he respond?
- Are there other things that I should be aware of when interviewing your older child?
- What are some of the illness experiences you have had? What are some of the illness experiences other family members have had?
- In your view what are some of the reasons for the illness experienced by yourself and other members of your family?

Draft interview questions for other adult family member participants

The interviewer will ask adult family member participants open-ended questions regarding participation in cultural communities, length of time since immigration, roles of participant in the four-year-old child's life, illness experience, medical experience, illness causality beliefs and behaviour, sources of information regarding illness causality, illness prevention strategies and attitudes towards sharing information regarding illness causality.

Open-ended questioning will include:

- What are some of the illness experiences you have had?
- What are some of the illness experiences other family members have had?
- In your view what are some of the reasons for illness experienced by yourself and other members of your family?

Draft interview questions for child participants

During interviews with children, a loose interview schedule will be utilised with the aid of the photographic resource. The researcher will ask open-ended questions to elicit children's thoughts with regard to the content of the photographs. Care will be taken with regard to the wording of questions.

The following line of open-ended questioning will be employed with child participants and adapted to match the child's level of understanding:

- What can you see in the picture?
- What is happening with the child?
- Why are they…?
- What do you think happened?
- How did it happen?
- How do you think the child feels?
- What do you think might happen next?

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Project Title: Young children's views of illness causality in relation to the familial context

AUTHORITY FOR THE RELEASE OF TAPE TRANSCRIPTS

This form will be held for a period of five (5) years

I confirm that I have had the opportunity to read and amend the transcript of the interview conducted with me.

I agree that the edited transcript and extracts from this may be used by the researcher, Caroline McIntosh, in reports and publications arising from the research.

Signature: ....

Full Name: ....
(printed)

Date: ....

Appendix 7 Letter to kindergarten management

[Sender's mailing address]
29 March 2005

[Name of manager]
[Mailing address]

Dear [Name of manager]

I am writing to request a telephone discussion with yourself regarding the possibility of conducting project fieldwork with [name of kindergarten management] based at [name of kindergarten]. The teaching team have expressed interest in being involved in the project should permission be obtained from [name of kindergarten management].

I am a trained kindergarten teacher and have previously worked for [name of kindergarten management] including a teaching position at [name of kindergarten] (1991-1994). I am currently residing in Dunedin, undertaking doctoral study through Massey University and working as a Hospital Play Specialist at Dunedin Hospital on a casual basis.

My doctoral study builds upon a project that I undertook for the Master of Educational Psychology degree and focuses upon 'young children's meaning-making regarding the cause of illness in relation to the sociocultural context of the family'. The initial fieldwork involves interviews with 3-6 four-year-old children attending kindergarten along with selected family members. [Name of kindergarten] is ideal for this fieldwork in terms of the diversity of familial contexts, my existing links with the kindergarten community, and the location of the kindergarten.

Should you be agreeable I would very much like to talk with you in order to further explain the nature of the study and discuss possible involvement of [name of kindergarten management]. I am enclosing a copy of the information sheet for teaching staff for your perusal and will contact you towards the end of the week to discuss the possibility of arranging a discussion time.

Thank you very much for your consideration.

Yours sincerely

Caroline McIntosh
[Contact details]

[Kindergarten management letterhead]

Research Access Agreement

1.   Initial Work/Background

1.1   What is your name and what is your background?

Caroline McIntosh (nee Drewitt) BA, MEdPsyc, Dip Kgtn Tchg. I have 15 years of experience working with families in both kindergarten and healthcare settings including a teaching position at [name of kindergarten] (1991-1994). During this time I have worked with various cultural communities and I have the support of cultural advisors with whom regular meetings are held. I have experience conducting individual and group interviews with children and adults including the completion of two small-scale projects involving young children and their families. I am currently residing in Dunedin, working as a Hospital Play Specialist on a casual basis and undertaking doctoral study with Massey University.

1.2   What is the name of the research project and a brief description?

Working title: 'Young children's views of illness causality in relation to the familial context'. Please see attached sheet for further information.

1.3   How will the research be introduced in the kindergarten?

Firstly via a meeting with myself and the teaching team. Subsequently the Head Teacher will inform selected families of the study and then introduce me to interested parties.

1.4   Why are you approaching this kindergarten?

This kindergarten has been selected due to the wide diversity in familial contexts, my existing links with the kindergarten community and the expressed interest of the teaching team.

1.5   Will the researcher attend a meeting to explain the research project to other teachers, management and parents? If so, when?

A meeting with the teaching team during the afternoon of Monday 2nd May has been requested. Management are welcome to attend this meeting. Parents will be informed on an individual basis.

1.6   Will you be prepared to spend some time in the kindergarten to become familiar with our complex and busy daily events?

I will make several familiarisation visits to the kindergarten prior to undertaking fieldwork.

1.7 How will teachers and children be involved in the project?

Teachers will introduce me to the kindergarten community including potential participants. Between three and six kindergarten children will be involved in project interviews.

1.8 What will happen if a child becomes upset during the research?

The interview will be terminated, teaching team advised, and the child debriefed.

1.9 Can we withdraw after you have begun?

Yes, at any stage of the fieldwork.

2. Ethics/Privacy

2.1 How will informed consent be obtained from children, parents and staff members?

Please see attached sheet

2.2 Will you have ethical approval from an institution or organisation before you start?

Yes/No   If so, what organisation?

Approval has been granted by the Massey University Human Ethics Committee - **Application PN 04/68.**

2.3 How will you ensure children, parents, teachers and management are all informed of the project's purpose and freely consent to participate?

Please see attached sheet.

2.4 How will the kindergarten staff and children's privacy be protected when the research is delivered and reported to other people?

No identifying information will be included in the report or delivery of findings.

2.5 What opportunities will be provided to monitor the documentation and review the findings before they are presented?

Participants are invited to check the accuracy of the material pertaining to themselves and will be able to amend or omit details if desired.

2.6   What processes will occur if teachers disagree with the researcher's findings?

The teaching team will be informed of the findings. Their feedback will be welcomed and incorporated into the report if desired.

3.   Benefits of the Research

3.1   How will the work of the children and staff be acknowledged?

I will be very respectful in my interactions with children, families and the teaching team, value their time and input, and personally acknowledge their assistance.

3.2   What benefit will this research have for the teaching and learning, at this kindergarten and in the wider community?

Participants may benefit from having an opportunity to share their views regarding illness causality and from having their views acknowledged and recorded for the benefit of others. Research findings are likely to be particularly useful for early childhood educators including hospital play specialists and special education practitioners along with primary school teachers, health educators and family support workers.

3.3   What can the kindergarten expect, in return, from the researcher?

I will conduct the research in a professional manner continually mindful of ethical practice, keep the teaching team informed of my plans and progress, work in with kindergarten schedules, and endeavour to make positive contributions to the kindergarten environment.

Please attach relevant documentation to support this agreement and send to [name of kindergarten management] for approval through [name of kindergarten management] Research Ethics Committee.

Signed: _____   **Dated:**   _____
                  (Name of Researcher)

                 _____
                  (Organisation)

Signed: _____   **Dated:**   _____
                  (Head Teacher)

                 _____
                  (Name of Kindergarten)

Signed: _____   **Dated:**   _____
                  (On behalf of Kindergarten
                  Management)

Appendix 9 Information sheet for teachers

[Printed on Massey University departmental letterhead]

Project Title: Young children's views of illness causality in relation to the familial context

INFORMATION SHEET FOR TEACHING STAFF

Researcher: Caroline McIntosh

I am a trained kindergarten teacher and have previously worked as a teacher with [name of kindergarten management]. I am currently working towards fulfilment of the Doctor of Philosophy Degree in Education at Massey University and this project forms the basis of my study.

Project Outline:

The study will explore young children's meaning-making regarding the cause of illness in relation to the sociocultural context of the family. In consultation with yourself and other members of the teaching team, 6 families will be invited to participate in the study. Families who have a four-year-old child attending the participant kindergarten and an older child/ren attending primary school will be targeted for the study. In addition to the above criteria, it is envisaged that families invited to participate in the study will reflect diversity of familial contexts with regard to elements such as participation in cultural communities, religious affiliation and family structure. English language competency will be a criterion for the four-year-old child, siblings and parents/guardians. In the case of grandparents and other older family members who do not speak English, interpreters from the participant's community will be utilised with the participant's permission. It is envisaged that findings from the study will help practitioners work more effectively with young children and their families in both health and education settings.

Participation Requested**:**

Permission will initially be sought from Management of [name of kindergarten management]. The study is supported by advisors who will be consulted throughout all phases of the project and formal consent procedures will be adopted for family members and teaching staff.

Your kindergarten's participation will involve:

- An initial meeting between myself and your teaching team during which time I will introduce the project, seek advice regarding families who fulfill the sample criteria and could be approached regarding participation in the study, and discuss consent procedures for all parties.

- An invitation to parents/guardians to participate in the study will first be made by the Head Teacher accompanied by an information sheet. After having had time to consider the invitation, parents/guardians will advise the Head Teacher as to whether or not they wish to participate in the study. I will then personally introduce myself to interested family members, provide the relevant information sheets and consent forms, and answer any questions about the study.

- With your permission I will make several informal pre-arranged visits to your kindergarten prior to the commencement of fieldwork in order to introduce myself to your kindergarten community, develop rapport with families and help to establish my role with children as a fellow player rather than a teacher.

- Fieldwork, involving interviews with participating children and their family members, will be undertaken by myself. Interviews with children will be conducted on the premises of your kindergarten. Interviews with adults will be undertaken at a venue of their choice. Interviews will be conducted during the period May-June 2005 on dates that are deemed appropriate by both your teaching team and participants. Interviews will be conducted with the minimum amount of disruption to the kindergarten environment.

- Interviews will be undertaken with the four-year-old child, primary school-aged sibling/s, parent/guardian, and two other family members who share a close relationship with the four-year-old child, for example, other parent/guardian, older sibling, aunt/uncle, grandparent or older family member.

- Interviews with parents/guardians will be undertaken prior to interviews with children so that parents/guardians will become aware of the nature of the forthcoming interviews with their children and I can be made aware of any sensitive issues that may surface during interviews with their children.

- Children will be interviewed either individually or with their older sibling. Other family members will be interviewed at separate times. It is preferable that members of the same family are interviewed on the one day.

- All interviews will involve open-ended questioning with the aid of a photographic resource depicting children experiencing illness in a home setting. Photographs will be appropriate for young children. Children will also be invited to draw their thoughts about the causes of illness.

- Each interview is likely to last for approximately 30-45 minutes.

- Each interview will be taped and/or notes taken with the participant's permission.

Project Procedures:

Anonymity and confidentiality will be protected as far as possible. Information gathered will only be used for this research project and publications arising from this research project. Audiotapes will be transcribed only by myself and remain confidential to my supervisors and myself. Tapes and transcripts will be stored in a locked cabinet only accessible to my supervisors and myself. Consent forms will be secured in a separate

location, again only accessible by supervisors and myself. Data gathered will be coded to protect the identity of participants and no identifying information regarding participants or the kindergarten will be reported. Once the project has been completed and formally assessed, a summary will be made available to yourselves and participant families. A full report will be provided to [name of kindergarten management] and the Hospital Play Specialists Association of New Zealand. All audiotapes and written records will be securely stored for five years after which time they will be destroyed.

Participant's Rights:

Participants are under no obligation to accept the invitation. If participants decide to accept the invitation, they have the right to:

- decline to answer any particular question;
- withdraw from the study at any stage;
- ask any questions about the study at any time during participation;
- provide information on the understanding that their name will not be used unless they give permission to the researcher;
- ask for the audiotape to be turned off at any time during the interview;
- be given access to a summary of the project findings when it is concluded.

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application 04/68. If you have concerns about the conduct of this research, please contact Professor Sylvia V Rumball, Chair, Massey University Campus Human Ethics Committee, Palmerston North, telephone 06 350 5249, email: humanethicspn@massey.ac.nz

Contact Details
If you would like further information about the study please contact me on: [contact details]. You are also welcome to contact my supervisors:

Professor Joy Cullen
Massey University, Palmerston North
Phone (06) 356 9099 Ext. 8955
Email: J.L.Cullen@massey.ac.nz

Dr Barbara MacLean
Massey University, Palmerston North
Phone (06) 356 9099 Ext. 8956
Email: B.L.Maclean@massey.ac.nz

Thank you very much for taking time to consider participation in this study.

Caroline McIntosh

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Project Title: Young children's views of illness causality in relation to the familial context

Consent Form for Head Teachers
This consent form will be held for a period of five (5) years

Researcher: Caroline McIntosh

Supervisors: Prof. Joy Cullen & Dr Barbara MacLean

- I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I understand that I have the right to withdraw myself and/or the kindergarten from the study at any time and to decline to answer any particular questions.

- I agree to provide information to the researcher on the understanding that neither my name nor the kindergarten's name will be used without my permission. Information gathered will be used only for this research and publications arising from this research project.

- I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: ....

Full Name: ....
(printed)

Date: ....

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Project Title: Young children's views of illness causality in relation to the familial context

Consent Form for Teachers
This consent form will be held for a period of five (5) years

Researcher: Caroline McIntosh

Supervisors: Prof. Joy Cullen & Dr Barbara MacLean

- I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I understand that I have the right to withdraw myself from the study at any time and to decline to answer any particular questions.

- I agree to provide information to the researcher on the understanding that my name will not be used without my permission. Information gathered will be used only for this research and publications arising from this research project.

- I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: ....

Full Name: ....
(printed)

Date: ....

Te Kunenga
ki Pūrehuroa

Appendix 12 Information sheet for parents/guardians

[Printed on Massey University departmental letterhead]

<u>Project Title:</u> Young children's views of illness causality in relation to the familial context

INFORMATION SHEET FOR PARENTS/GUARDIANS

Dear Parent/Guardian

My name is Caroline McIntosh. I am a trained kindergarten teacher and have previously worked as a teacher with [name of kindergarten management].

I am writing to ask if you and your family would like to participate in a project that I am carrying out focusing on children's thinking about the causes of illness. Information from the study will help teachers and healthcare workers to provide a better service for young children and their families. This study is part of my course work at Massey University for the Doctor of Philosophy programme.

Management of [name of kindergarten management] and teaching staff at the kindergarten support this project, and have suggested approaching your family to invite you to take part in the project.

<u>Participant Involvement:</u>

- If you agree to participate I will interview yourself and the following members of your family after they have given their permission:

  ❖ Your four-year-old child;
  ❖ Your child/ren attending primary school;
  ❖ Two other members of your family who share a close relationship with your four-year-old child, for example, other parent/guardian, older brother/sister, aunt/uncle, grandparent or older family member.

- Interviews will be conducted at a time suitable to your family during the period May-June 2005.

- Interviews with children will be held at the kindergarten. Yourself and other adults in your family may prefer to be interviewed elsewhere.

- I will interview you before interviewing your children so that you will know what the interview will be like for your children and you can let me know of any issue that may be important when I am talking with your children.

- Your four-year-old child will be interviewed either individually or with his/her primary school-aged brother or sister. Other family members will be interviewed at separate times. It is preferable that members of your family are interviewed on the one day but at different times.

- All interviews will involve open-ended questioning with the aid of a photographic resource depicting children experiencing illness in a home setting. Photographs will be appropriate for young children. Children will also be invited to draw their thoughts about the causes of illness. (Could you please explain to your children that I would like to talk with them and ask them questions about some photographs of children.)

- Each interview is likely to last for approximately 30-45 minutes.

- Each interview will be taped and/or notes taken with the participant's permission.

Project Procedures:

Anonymity and confidentiality will be protected as far as possible. Information gathered will only be used for this research project and publications arising from this research project. Audiotapes will be transcribed only by myself and remain confidential to my supervisors and myself. Tapes and transcripts will be stored in a locked cabinet only accessible to my supervisors and myself. Consent forms will be secured in a separate location, again only accessible by supervisors and myself. Data gathered will be coded to protect the identity of participants and no identifying information regarding participants or the kindergarten will be reported. Once the project has been completed and formally assessed, a summary will be made available to yourselves and participant families. A full report will be provided to [name of kindergarten management] and the Hospital Play Specialists Association of New Zealand. All audiotapes and written records will be securely stored for five years after which time they will be destroyed.

Participant's Rights:

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any stage;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- ask for the audiotape to be turned off at any time during the interview;
- be given access to a summary of the project findings when it is concluded.

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application 04/68. If you have concerns about the conduct of this

research, please contact Professor Sylvia V Rumball, Chair, Massey University Campus Human Ethics Committee, Palmerston North, telephone 06 350 5249, email: humanethicspn@massey.ac.nz

Contact Details

If you would like further information about the study please contact me on: [contact details]. You are also welcome to contact my supervisors:

Professor Joy Cullen
Massey University, Palmerston North
Phone (06) 356 0900 Ext. 8955
Email: J.L.Cullen@massey.ac.nz

Dr Barbara MacLean
Massey University, Palmerston North
Phone (06) 356 9099 Ext. 8956
Email: B.L.Maclean@massey.ac.nz

Thank you very much for taking time to consider participation in this study.

Caroline McIntosh

Appendix 13 Information sheet for family members

[Printed on Massey University departmental letterhead]

Project Title: Young children's views of illness causality in relation to the familial context

INFORMATION SHEET FOR FAMILY MEMBERS

Dear Family Member

My name is Caroline McIntosh. I am a trained kindergarten teacher and have previously worked as a teacher with [name of kindergarten management].

I am writing to ask if you would like to participate in a project that I am carrying out focusing on children's thinking about the causes of illness. Information from the study will help teachers and healthcare workers to provide a better service for young children and their families. This study is part of my course work at Massey University for the Doctor of Philosophy programme.

Management of [name of kindergarten management] and teaching staff at the kindergarten support this project, and have suggested approaching your family to invite you to take part in the project.

Participant Involvement:

- If you agree to participate I will interview you at a time suitable to yourself during the period May-June 2005.
- The interview will take place at a venue of your choice.
- During the interview I will show you some photographs of children experiencing illness in a home setting (photographs will be suitable for young children to view also) and ask you to talk about your views about the causes of illness.
- The interview is likely to last for approximately 30-45 minutes.
- The interview will be taped and/or notes taken with your permission.

Project Procedures:

Anonymity and confidentiality will be protected as far as possible. Information gathered will only be used for this research project and publications arising from this research project. Audiotapes will be transcribed only by myself and remain confidential to my supervisors and myself. Tapes and transcripts will be stored in a locked cabinet only accessible to my supervisors and myself. Consent forms will be secured in a separate location, again only accessible by my supervisors and myself. Data gathered will be coded to protect the identity of participants and no identifying information regarding participants or the kindergarten will be reported. Once the project has been completed

and formally assessed, a summary will be made available to yourselves and participant families. A full report will be provided to [name of kindergarten management] and the Hospital Play Specialists Association of New Zealand. All audiotapes and written records will be securely stored for five years after which time they will be destroyed.

Participant's Rights:

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any stage;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- ask for the audiotape to be turned off at any time during the interview;
- be given access to a summary of the project findings when it is concluded.

This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Application 04/68. If you have any concerns about the conduct of this research, please contact Professor Sylvia V Rumball, Chair, Massey University Campus Human Ethics Committee, Palmerston North, telephone 06 350 5249, email: humanethicspn@massey.ac.nz

Contact Details

If you would like further information about the study please contact me on: [contact details]. You are also welcome to contact my supervisors:

Professor Joy Cullen
Massey University, Palmerston North
Phone (06) 356 9099 Ext. 8955
Email: J.L.Cullen@massey.ac.nz

Dr Barbara MacLean
Massey University, Palmerston North
Phone (06) 356 9099 Ext. 8956
Email: B.L.Maclean@massey.ac.nz

Thank you very much for taking time to consider participation in this study.

Caroline McIntosh

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Matauranga

Project Title: Young children's views of illness causality in relation to the familial context

Consent Form for Family Members
This consent form will be held for a period of five (5) years

Researcher: Caroline McIntosh

Supervisors: Prof. Joy Cullen & Dr Barbara MacLean

- I have read the Information Sheet and letter to family members, and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I understand that I have the right to withdraw myself from the study at any time and to decline to answer any particular questions.

- I agree to provide information to the researcher on the understanding that my name will not be used without my permission. Information gathered will be used only for this research and publications arising from this research project.

- I agree to be interviewed.

- I *agree/do not agree* to the interviews being audio-taped.

- I also understand that I have the right to ask for the audiotape to be turned off at any time during the interviews.

- I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: ....

Full Name: ....
(printed)

Date: ....

Te Kunenga
ki Pūrehuroa

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Matauranga

Project Title: Young children's views of illness causality in relation to the familial context

Consent Form for Parents/Guardians
This consent form will be held for a period of five (5) years

Researcher: Caroline McIntosh

Supervisors: Prof. Joy Cullen & Dr Barbara MacLean

- I have read the Information Sheet and letter to parents/guardians, and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

- I understand that I have the right to withdraw myself from the study at any time and to decline to answer any particular questions.

- I agree to provide information to the researcher on the understanding that neither my name nor my children's name will be used without my permission. Information gathered will be used only for this research and publications arising from this research project.

- I agree to be interviewed.

- I agree for my children to be interviewed

- I *agree/do not agree* to the interviews being audio-taped.

- I also understand that I have the right to ask for the audio tape to be turned off at any time during the interviews.

- I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: ....   Signed: ....

Full Name: Full Name:
(printed) ....   (printed) ....

Date: ....   Date: ....

Te Kupenga
ki Pūrehuroa

Massey University
COLLEGE OF EDUCATION
Te Kupenga o Te Matauranga

LEARNING AND TEACHING
Private Bag 11 222
Palmerston North
New Zealand
T 64 6 356 9099
F 64 6 351 3363
www.massey.ac.nz

Project Title: Young children's views of illness causality in relation to the familial contexts

Consent Form for Children

Researcher: Caroline McIntosh

Supervisors: Joy Cullen & Barbara MacLean

My name is:

- I have talked to Caroline about how we are going to look at some photographs together. I know that the photographs are of children and that Caroline is going to ask me what I think is happening in the photographs. I know that I can also do some drawing while we talk.

- I am happy to look at Caroline's photographs and talk to her about them.

- I will let her tape the talks we have.

- I know that Caroline is going to talk to some other people in my family to see what they think about the photographs too.

Child's signature:

Te Kunanga ki Purehuroa

Appendix 17 Transcript notation

Transcription Symbols:

….   Time interval

( )   Denotes English translation, clarification of meaning, or removal of identifying

        information

(( ))   Gesture or expression

!   Animated tone

[1]   Indicates length of pause in seconds

Un   Italics indicate narrator's emphasis

<u>Un</u>   Italics and underlining indicate narrator's increased emphasis

{ }   Uncertain transcription

/   Rising inflection