

A Research Study on Secure Attachment Using the Primary Caregiving Approach

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Abstract A child's positive sense of well-being is central to their overall growth and development. With an increasing number of mothers in the workforce, many infants and toddlers spend much time in child care services. Hence it is crucial that caregivers provide a secure base for the child to develop secure attachment with educarers. Given multiple caregivers, fostering attachment in the child care setting can be problematic. One strategy used in some countries is the implementation of a primary caregiving system. The purpose of this research study was to investigate how caregivers in two childcare centres in Singapore implemented the primary caregiving system. A 'before-and-after' methodology was used to find out if change had occurred after the intervention. Results showed that attachment in infants/toddlers had strengthened through the

improved educaring practices, collaboration with families, staff team work and employment stability.

Keywords Well-being · Attachment · Primary caregiving · Infants/toddlers

Background

The emotional well-being of children is receiving well deserved attention as early childhood educators realise that in order to develop optimally, a positive sense of well-being is central. In this sense, well-being is defined as a complex physical and psychological state comprising good physical health and feelings of happiness, satisfaction and social functioning. It is demonstrated through one's interactions in the environment. These interactive elements are seen as making a contribution to the overall well-being of the child (Department for Children, Schools and Families [DCSF] 2008; Department of Education, Employment and Workplace Relations [DEEWR] 2009; Department of Health [DoH] 2004; Marotz 2012; Mayr and Ulich 2006).

Well-being can be linked to the needs of children of all ages to form positive relationships with parents, other family members and with the educarers and teachers who work with them in a range of contexts. Cross (2011), Ebbeck and Yim (2008), and Riley et al. (2008) propose that these relationships have a profound and lasting effect on the developing child. These effects are seen in the development of self-regulation, language, learning, and social interactions, and they take place in the context of all those involved in the life of the child. Curriculum guidelines in many countries are requiring early childhood centres to plan for, and develop, programmes which foster well-being in children. These guidelines emphasise that it is essential

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that staff help babies and young children enjoy a healthy and balanced diet, feel good about themselves and develop resilience and self-awareness (Education Bureau [EDB] 2012; Education Scotland [ES] 2013; Ministry of Education [MOE] 1996, 2012).

Young Children in Child Care

With the worldwide increase in the number of working mothers, there is a need for the provision of high quality child care for infants, toddlers and pre-school aged children. Statistics show that 81 % of Australian mothers were in the workforce in 2009–2010 (Australian Bureau of Statistics [ABS] 2011) and that a child can spend up to 12,500 h in child care before starting school (Taylor 2004). In Singapore, it is currently reported that the number of children enrolled in childcare centres has increased from 52,945 in 2008 to 85,060 in August 2013 (Goy and Tai 2013, p. B2). With much time spent away from home, and considering the well-being of the children, it is crucial for caring professionals to build positive relationships between themselves, children, and parents if they are to provide quality child care experiences.

Secure Attachment: Issues in Child Care

When considering the well-being of the child, the development of trust (Erickson et al. 1992/2008; Schaffer and Emerson 1964/2008) and secure attachment becomes an important fundamental factor in fostering infants' growth and development. Much has been written on attachment arising out of the early work of Bowlby, and his many papers including his attachment trilogy (Bowlby 1969/2010a, 1973/2010b, 1980/2011). More recently, work by Berk (2012), Harrison (2003), and Honig (2002) emphasise that attachment is a strong, affectionate tie with the special people in our lives, and is a human ability that endures over time.

In considering the childcare context, attachment provides a secure base for the infant, toddler and the older child. Many researchers believe that attachment is fundamental to the overall development and well-being of the child (Cassidy 2000; Gonzalez-Mena 2013; Honig 1984).

The Primary Caregiving System

The primary caregiving system as defined by Kovach and Da Ros-Voseles (2008, p. 31) is:

a practice where a caregiver is 'in' a special relationship with a small group of babies (three to four) and where mutual trust and respect for one another

develops over time. The carer knows and understands the babies' cues, needs and preferences and by relating together, the babies begin to know and trust the caregiver. This special connection allows the babies to signal to their caregiver their physical and/or emotional needs.

The primary caregiving system involves a practice that requires the caregiver to assume responsibility for a small group of young children (Richardson 2000). Ebbeck and Yim (2008) emphasise that this primary caregiver becomes the main contact person between the child and the home (p. 165). Primary caregivers, therefore, take major responsibility in meeting the care and educational needs of the small group of infants and toddlers, particularly under the age of 3 years, within a larger group of their peers (Theilheimer 2006).

Balaban (2006, p. 7) added that "the best system relies on the cooperation and mutual helpfulness of the caregiving team". Primary caregiving works best in teams, where two caregivers work together in meeting the needs of a small group of children, but one caregiver takes the lead for the children in that small group. This 'team approach' helps children to have a second caregiver with whom they feel comfortable when their primary caregiver is not there. The secondary caregiver also holds responsibility for providing consistent care in ways that maximise the child's potential for learning in all experiences. This tripartite relationship, among the primary caregiver, secondary caregiver and the child, provides the security and trust that enables the child to explore and flourish in the infant care setting. Staff stability in this 'team approach' is important for assessing the child's healthy emotional development as well as providing the underpinnings for all other areas of development.

In an effective primary caregiver approach, the child is able to develop trust knowing that the primary caregiver is there to respond appropriately to their unique temperament, needs and interests. The primary caregiver is the one who usually responds to the child's needs and is the main communicator with that child (Theilheimer 2006). However, this is not an exclusive arrangement, given the demands of complex staffing schedules. Primary caregiving provides the opportunity for a young child to form a secure attachment with one caregiver and have secure relationships with secondary caregivers also.

Raikes (1996) and Theilheimer (2006) highlight how the primary caregiving system helps to establish a triad of meaningful and lasting relationships that involves children, families and the caregivers. Theilheimer (2006) further adds that primary caregivers play a key role in a child's development being active, reflective and empathetic caregivers. All of these traits grow out of attachment which

forms the basis for trusting relationships and positive social/emotional development.

Child Care Provision in Singapore

Many Singaporean parents in the workforce rely on child care services (Goy and Tai 2013, p. B1) that include infants/toddlers aged from 2 to 18 months and children up to 6 or 7 years before the child starts formal education in the primary schools. All child care services in Singapore are privately-run and licensed by a newly established division under the Ministry of Social and Family Development [MSF], known as the Early Childhood Development Agency (ECDA). As of July 2013, ECDA reported a total of 321 child care centres with infant care services, with 3,100 infants/toddlers enrolled out of the 5,106 places available in centres (ECDA 2013). ECDA also accredits the educators who work in the centres. In Singapore, it is a common practice for child care centres to adopt group care practices for the infants/toddlers with no assigned caregivers to assist designated children. Activities are usually planned according to the age of the infants/toddlers rather than in accord with their developmental needs. This practice resulted in a team of researchers becoming concerned about the social emotional welfare of these young children, specifically in relation to the attachment issue given the current group care arrangements. A research study was devised for two centres that were willing to experiment with the implementation of the primary caregiver system.

Purpose of the Research Study

The purpose of this research study was to investigate how caregivers in two child care centres in Singapore implemented the primary caregiving system, which, in turn, would provide insights into the attachment behaviour of the infants/toddlers in the sample. In addition, the study would provide information about the appropriateness of the primary caregiving system for the two child care centres.

Several research questions were investigated in the study, but this paper deals with only two, as follows:

1. Can primary caregiving strengthen attachment in infants/toddlers who are between 2 and 18 months old?
2. What are the strengths and challenges in the implementation of the primary caregiving system?

Setting and Sample

Convenience sampling (Bell 2010; Kumar 2011) was used to identify two child care centres in Singapore that were

Table 1 Number of caregivers and infants/toddlers, and the mean age of the infants/toddlers in each centre

Centres	Centre 1	Centre 2
No. of caregivers	4 (full-time)	3 (full-time) 1 (part-time)
No. of infants/toddlers	8	9
Mean age of infants/toddlers	10.9 months	10.6 months

willing to participate in the study. Two centres were needed in order to get sufficient sample numbers. These centres were from the same organisation and hence the practices and policies in relation to the provision of care were similar.

The centres were situated at the ground level of public housing estates and were available to families of different backgrounds and social economic status. The mothers of the participating infants/toddlers were between 20 and 40 years old and all were working. In addition to the government subsidy for all working mothers, eight of the mothers received additional government subsidy to help defray the cost of the infant care fees.

The number of caregivers and infants/toddlers, and the mean age of the infants/toddlers in each centre is shown in Table 1.

The mean age of the infants/toddlers were 10.9 and 10.6 months in Centre 1 and Centre 2 respectively. They were between the age range of 4–17 months, and hence were well within two of the four proposed attachment phases of Bowlby (as cited in Cowie 2012), where infants/toddlers are beginning to form attachment with their primary caregiver and where the attachment is usually most intense.

All the eight caregivers had met the regulatory teaching requirements of having a minimum Secondary Two academic qualification and being professionally trained with the mandatory Certificate in Infant and Toddler Care. In addition, the caregivers were required to satisfactorily complete 16 h of training in the Early Years Development Framework (EYDF) developed by the Ministry of Social and Family Development.

Methodology

The methodology used was a modified before-and-after approach (Kumar 2011) with two sets of data being compared to find out if change had occurred as a result of the intervention of a primary caregiving system. The researchers proposed that this would answer the two identified research questions.

The intervention comprised the implementation of the primary caregiving system with a total of 55 h of

Table 2 Typical day in both centres prior to the intervention

Parents or other carers brought the infants/toddlers to the centre
Staff on duty that morning received the infants/toddlers at a designated area before the entrance to the infant bay
Some crying and separation anxiety behaviours were expressed during the handover of the child
The centre staff then brought the child into the infant bay and did their best to settle them down
It was not a centre's practice to allow parents to settle their own children at such separation anxiety situations after the third day of the child's enrolment. Inevitably, some of these parents left the centres on such days feeling distressed at the infants'/toddlers' behaviour
The infants/toddlers were often confined in certain areas of the infant bay. They would cling to the assigned primary caregivers throughout the day, following the caregivers wherever they went, and cried uncontrollably when the caregivers were not in sight. It was most distressing for the child when the primary caregivers took their leave before the infant's/toddler's departure time, leaving the child unsettled until the parents or other carers arrived to bring them home
The centre staff were thus not convinced that the primary caregiving system would build attachment and would often revert to group care amongst themselves to help the infants/toddlers familiarise themselves with the other caregivers hoping to ease the separation anxiety

classroom observations videotaped over a 5-month period. The observations were later analysed. This approach included the collection of qualitative data before and after the on-site training of the caregivers through what is termed a 'Professional Learning Circle' structure. In this training, the theory and pedagogical practices related to the primary caregiving system were studied.

The collection of child observations enabled the researchers to have first-hand experiences with the participants (Creswell 2013b; Wellington 2000) thereby gathering very rich and comprehensive data about the children and their interactions with caregivers. Video-recordings of the infants'/toddlers' interactions in the centres were used to gather evidence of attachment between the caregivers and their infants/toddlers.

Results and Data Analysis

Prior to the intervention by the researchers, the two centre principals shared that the centres were not very successful in their prior attempts to implement the recommended primary caregiving system because of the many reservations of the caregivers. The researchers collected some base-line data before the intervention began and they were similar in both centres.

Table 2 summary represents the beginnings of a typical day in both of the centres when they first attempted to implement the primary caregiving system.

With the constant crying, much time was spent in settling the infants/toddlers. Activities were confined to caregiving routines such as diapering and feeding the infants/toddlers. There were few planned activities to stimulate the infants'/toddlers' growth and development. The researchers identified that the separation anxiety shown when the infants/toddlers became unsettled, disoriented and anxious occurred when their trusted carers were unavailable and was largely because the infants/toddlers had yet to form a secure attachment with the caregivers in the centres (Berk 2011; Berman 2010; Gold 2011; Mayer 2008; Pantley 2010).

Implementation of the Intervention

Over a period of 5 months the research team worked with staff in the two centres. The researchers' roles were that of both participant and non-participant. They were non-participant as they observed and videotaped the interactions between the caregivers and the infants/toddlers, and participants as they assisted staff to better understand the primary caregiving system and its implementation processes through the Professional Learning Circle sessions.

The Professional Learning Circle was a staff development activity and involved some on-site training sessions in group or individual settings, with the caregivers using classroom video recordings of themselves to encourage reflective practice. The training sessions aimed to further enhance the caregivers' capabilities in carrying out their duties, and to strengthen their relationships with the infants/toddlers and their parents. As such, the sessions focused on the learning environment, caregivers' pedagogy and documentation of their observations. There was a conscientious effort to help the caregivers understand that in order to achieve the desired secure attachment with the infants/toddlers, the primary caregivers needed to be emotionally available to the children designated to their care.

Qualitative data were obtained from the transcripts of the interviews with the caregivers, principals and parents, the observations of children undertaken by the researchers, and the video recordings were analysed through the coding process (Creswell 2013a). The qualitative data enabled evidence to be obtained related to the three major themes in the implementation of the primary caregiving system, namely the centre's practices, caregivers' relationships with the infants/toddlers and their families, and the interactions with the infants/toddlers through caregiving routines and activities. Of these, the researchers identified that building relationships and engaging in meaningful interactions with the infants/toddlers and their families were keys to helping the infants'/toddlers' secure attachment with their caregivers.

Table 3 Typical day in both centres after the intervention

Parents or other carers brought the infants/toddlers to the centre
Staff on duty that morning received the infants/toddlers at a designated area before the entrance to the infant bay
It was a smooth handover of the child to the caregiver with a pleasant greeting and farewell to the parent. Little settling of the infants/toddlers was required
Throughout the day, the infants/toddlers were often within close proximity to their primary caregivers and did not show any signs of anxiety or distressed when there were visitors or unfamiliar faces in the centre. The infants/toddlers were seen to be engaged in some activities most of the time. The mobile infants/toddlers would move around the infant bay at ease and occasionally looked out of the low windows with curiosity. They were able to access toys and materials from the shelves and enjoyed bringing the materials around to ‘show’ the caregivers
When the caregivers were temporarily out of sight to prepare for routine tasks like showering, diapering and milk feeding, the infants/toddlers were seen to move their gazes around the room in search of their primary caregivers, while continuing with their activities
Laughter and giggles occurred frequently during the interactive activities with the infants/toddlers
Cries were rarely heard except for the infants’/toddlers’ ‘requests’ for assistance with diapering and feeding. The caregivers were seen to be engaged in some play activities with the infants/toddlers depending on the latter’s nap time
The day would then end with another pleasant greeting and farewell upon the parents’ arrival, regardless of the presence of the primary caregiver

The qualitative data showed that the primary caregiving system worked due to the small number (2–3) of infants allocated per primary caregiver and led to the development of individualised activities for the infants and toddlers. Six of the caregivers shared their newfound availability to plan the activities according to the individual infant’s/toddler’s developmental needs. Caregivers recorded observations during the infant’s/toddler’s play so that subsequent activities could be implemented appropriately to further enhance the infant’s/toddler’s growth and development. The caregivers were constantly reviewing the well-being of the infants/toddlers in their care as evidenced in the comment by seven of the eight caregivers who cited that they were able to “concentrate, understand infants/toddlers better, update parents on infants’/toddlers’ progress and bond with babies.

Evidence of Secure Attachment

Over the five months of the study, rich data were collected indicating that one of the key strengths of the primary caregiving approach was in enabling the child to ‘develop a sense of security and bonding’ with the same caregiver over time through the establishment of a sustained

relationship, which contributed to the apparent improved attachment of the infant/toddler to the caregivers.

Five months after the intervention, a typical day in both of the centres is shown in Table 3):

The research members attributed this smooth operation to the caregivers’ improved relationships with the key stakeholders of the primary caregiving system, thereby helping the infants/toddlers secure attachment.

When answering the two research questions, the evidence shown in the positive differences in the two scenarios before and after the intervention of the research study, enabled the research team to conclude that the primary caregiving system was appropriate in the two child care centres. It had helped strengthen attachment in the infants/toddlers and had enabled the caregivers to work with the infants/toddlers in a more positive and supportive environment. The caregivers were able to spend more time in facilitating children’s play than in managing their initial separation anxiety. The emotional well-being of the children was enhanced as shown in the two differing scenarios presented where the initially crying and clinging of the infants/toddlers were substantially modified to the point where they had begun to show pleasure from the desired responsive interactions with the caregivers and their peers (Shin and Lee 2011).

Further Discussion of the Findings

The research team identified some important findings from this small but unique study.

Caregivers’ Improved Practices

The field notes of the Professional Learning Circle sessions, which concentrated on pedagogy and improving the infants’/toddlers’ environment to help strengthen secure attachment, showed that the caregivers were typically provided with additional sensorial materials and teaching information for the infants/toddlers under their care. However, the caregivers’ anxiety over the infants’/toddlers’ safety was preventing the infants’/toddlers’ the opportunities for self-discovery. In order to provide for more interactive activities with the infants/toddlers, more visual displays and appropriate resources were made accessible to them. Towards the end of the research period, two infants/toddlers were seen to be engaged in social play by ‘pushing a tube’ to each other.

The data gathered showed that the training of the caregivers had improved their practices and pedagogical strategies. It was observed that the caregivers were better able to recognise, acknowledge and respond sensitively to each infant’s/toddler’s cues. The caregivers would smile, establish

eye-contact, and use a soothing voice to calm infants/toddlers when upset. They used verbal indications of forthcoming transitions ('it will soon be lunch time') and praised infants/toddlers for their accomplishments, such as being able to stand and walk, and being able to stack up blocks. Caregivers who were initially shy were observed to be more expressive and confident in their interactions with the infants/toddlers, which helped to foster the attachment process.

All caregivers had established a close bond with their infants/toddlers by being emotionally available and 'spending quality time during play and storytelling activities, calling the infant/toddler by name, talking to them, touching and hugging, and providing undivided attention to them'.

Collaboration with the Infants' Families

Parents were understandably concerned with the quality of the services provided by the centres and the caregivers. Parents welcomed the dedicated 'one caregiver system' as it helped to minimise miscommunication between caregivers and parents. A number of parents proposed that familiarity with the child's habits created better understanding between the child and the caregiver and was beneficial to the child.

The caregivers communicated with the parents via a communication booklet. Parents were updated on the infants'/toddlers' progress via a daily log which recorded the infants'/toddlers' caregiving routine needs. Observation records of the infants/toddlers during play sessions were shared with the parents as well.

In order to ease the initial separation anxiety when infants/toddlers make the transition from home to the child care setting, the research team considered that the presence of parents would be most helpful. Hence it was suggested that a more active collaboration be made with the parents by inviting them into the centre (instead of just leaving the infants/toddlers at the designated area) before separating from their infants/toddlers in the morning. Similarly, during departure time, the presence of parents in the infant bay, rather than at the 'pick-up' area, would allow more time for the caregivers to establish rapport and familiarity with the parents. Ideally, as is happening in other countries, parents are welcome to observe or join in the infants'/toddlers' last play activity before going home. With such an inviting environment, rapport and trust will be built gradually amongst the caregivers, infants/toddlers and their parents. In this way, the attachment of infants/toddlers to their caregivers and parents can be fostered.

Importance of Team Work

As the primary caregiving system involves a team effort with the secondary caregiver, the caregivers also

highlighted the importance of timely communication with their partners to ensure that the attachment developed with the infants/toddlers would not be threatened with inconsistent practices by the two caregivers assigned to the infant/toddler. Depending on the work shifts of the caregivers, if the primary and secondary caregivers were not able to have a face-to-face handover of their duty, phone calls between the two caregivers would be made to ensure that the information of the child had been duly communicated.

Caregivers kept track of the infants'/toddlers' progress in the respective developmental areas through on-going written observation records, which were shared with the other staff members for further discussion to facilitate the infants'/toddlers' growth and development. These discussions included, for example, concerns and strategies to help the older infants/toddlers transit to the toddler group, which often helped cultivate a healthy professional developmental culture amongst the caregivers and other staff members in the centre.

Staff Stability: The Main Challenge of the Primary Caregiving System

With an attrition rate at 13 % in Singapore's child care sector reported for 2011 (MSF 2012), early childhood educator shortage is rampant in child care centres. This means that 13 % of child care staff who meet the Singapore teaching requirements for employment are leaving and must be replaced in child care centres. Staff are often re-deployed to other areas within the centre temporarily to care for other age group children. The centre principals often are more concerned with their accountability for all the children in the centre than ensuring that early infant attachment to the caregivers is developed. As such, the research team suggested the use of a consistent relief staff rather than high turnover of staff which is not beneficial for the infants/toddlers, especially in securing attachment with the caregivers and fostering their emotional well-being.

Conclusion

A trusting relationship between an infant and a caregiver will enable the infant to feel safe and secure when learning and exploring (Erickson et al. 1992/2008). Strong attachments and bonds help infants to feel loved, confident to explore, to be autonomous and resilient and to get up when they fall. In the long term, infants become self-regulated and trusting individuals (Mofrad et al. 2010).

The primary caregiving system allows caregivers to practice and display more responsive and sensitive care to infants/toddlers, implement child-centred activities and, in

the process, more secure attachment and positive relationships develop with the infants/toddlers and their families. These procedures contribute to the general well-being and healthy emotional development of the infants and toddlers.

Whilst the research study is small, it is believed that it is unique for Singapore and provides a model for other centres to either try or adapt. It does have relevance to other countries also as there is little evidence of studies on the primary caregiver in the Pan-Pacific region. Research by Shonkoff and Phillips (2000), and Mustard (2006) show convincingly how crucial the early years are in human development. Secure attachment is of great importance to well-being as it promotes later social competence leading to a healthy social and emotional development in young children (Ladd 2007).

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