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# Childcare staff and parents' beliefs about quality care for infants/toddlers in centre-based programs in Singapore

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**THE PURPOSE OF THIS** exploratory study was to understand childcare staff and parents' beliefs about quality care for infants/toddlers (aged birth to three years) in centre-based programs in Singapore. Childcare staff (comprising supervisors and educators) were interviewed to gather their views about: (1) key dimensions of quality care for infants/toddlers; (2) training programs for infant/toddler care; and (3) knowledge and skills important for the provision of high-quality care and programs. Educators were also observed to investigate the nature of their interactions with the infants/toddlers and invited to review and reflect on a video clip which depicted a caregiver interacting with a group of infants/toddlers. Additionally, parents were also interviewed for their perceptions on the research topic. The results from this study could be used to review the quality of care for infants/toddlers in centre-based programs and training courses which prepare childcare staff for work with infants/toddlers.

## Background

The dual working-parent phenomenon in Singapore has seen a rising number of families turning to infant/toddler care settings. Infant/toddler care services have also been viewed as a viable option since the government enhanced the baby bonus scheme in 2004 and the family and parenthood package in 2013, which provided generous subsidies and financial assistance for these services (NPTD, 2013). While there were only 25 infant/toddler care centres in 2004, this number increased to 393 in May 2015 to meet the demand for infant/toddler care services (ECDA, 2015). Hence, with the growing number of infants/toddlers enrolled in centre-based programs, it is crucial to examine the quality of infant/toddler care in these programs.

The introduction of the *Early Years Development Framework* (EYDF) by the then Ministry of Community Development, Youth and Sports (MCYS) in 2011 is both timely and necessary to ensure the quality of care for infants/toddlers in Singapore. The EYDF is aimed at guiding and setting standards for quality care for infants/toddlers as well as enabling childcare staff to adopt appropriate practices and create nurturing environments to support the growth and development of infants/toddlers in centre-based programs (MCYS, 2011).

While the EYDF does spell out what actions should be taken to ensure the quality of care for infants/toddlers, it

is not easy to describe or explain explicitly what quality care is for infants/toddlers. One of the reasons is that quality care is subjective in nature and varies in different cultural contexts (Ramey & Ramey, 2006). Hence, there could be many interpretations about what quality care is. However, several empirical research findings from the United States support common beliefs and practices which could constitute quality care across different cultural contexts (Ramey & Ramey, 2006).

### Quality care for infants/toddlers

Research into what constitutes quality care for infants/toddlers has gained momentum in recent years due to the advances made in neuroscience which support the strong association between early experiences and brain development (Huntsman, 2008). Young children's very early experiences are now seen to have a long-term impact on their ability to learn, gain confidence and relate well to others (Wittmer & Petersen, 2009).

Some recent studies which were conducted in countries such as Australia (Brownlee, Berthelsen & Segaran, 2009; Nyland, 2004), the Netherlands (Vermeer et al., 2008) and Israel (Koren-Karie, Sagi-Schwartz & Egoz-Mizrachi, 2005) have shown that quality of care for infants/toddlers in centre-based programs cannot be taken for granted. Additionally, although licensing rules may be put in place, this is not a guarantee for the quality of care being provided.

## Factors affecting quality of care

Research studies have identified structural and process factors which can determine quality care (Huntsman, 2008; Vandall & Wolfe, 2000). Structural factors can be easily regulated by a country's licensing guidelines such as group size, child–caregiver ratio and caregiver qualifications and training. Process factors, on the other hand, look at the dynamics of what actually occurs in the setting which are more vulnerable to variation such as caregiver–child interactions, caregiver–parent relationship and children's experiences. Quality care is a result of these factors combining or interacting with each other.

The need for infants/toddlers to be challenged appropriately for optimal development calls for higher quality dynamics especially in terms of caregiver–child interactions and practices (Jamison, Cabell, LoCasale–Crouch, Hamre & Pianta, 2014). It is also noted that a caregiver's level of qualifications and training is a better predictor of process quality than the other structural factors (Huntsman, 2008; Thomason & LaParo, 2009).

## Caregivers' beliefs and practices

There seems to be a need to go beyond custodial care to the provision of education and learning for the very young. This points to bridging the gap between care and education and advocates for infant/toddler care which integrates care and education (Bergen, Reid & Torelli, 2009). In Singapore, the term 'educarer' has been adopted to depict their evolving role and to emphasise the need to embed learning and development into infant/toddler care practices beyond just meeting physical and emotional needs (Bergen et al., 2009; Ebbeck & Yim, 2009).

Brownlee et al. (2009) explained that the childcare staff's level of qualifications and training has a strong influence on their epistemological beliefs and this in turn affects their abilities to provide quality interactions and programing which will promote learning and development among infants/toddlers. Their findings showed that infant/toddler caregivers perceived the affective domain as the main determinant of quality care. This limited perception of quality is consistent with their views on training. This study has important implications in that practice is often a result of the values and beliefs that are being held in the first place. An inaccurate/incomplete perception of the dimensions of quality care can have a negative impact on actual practice. Similar findings were also found in a study carried out by Berthelsen, Brownlee and Karuppiah (2011).

In view of the above, the following research questions evolved and guided the study:

- How do childcare staff (supervisors and educarers) perceive quality care in terms of their interactions and practices with infants/toddlers?

- How do childcare staff (supervisors and educarers) perceive the training which they had undergone to prepare them for their interactions and practices with infants/toddlers?
- What is the observed nature of the educarers' interactions and practices in centre-based programs for infants/toddlers?
- How do parents perceive quality care in terms of childcare staff's interactions and practices with infants/toddlers?

## The study

Although the study adopted a mixed-method approach, the focus of the study was primarily qualitative in nature as it aimed to gather rich, thick descriptive data from childcare staff and parents on their perceptions of quality care for infants/toddlers in centre-based programs in Singapore (Bogdan & Biklen, 2007). Data collected from the participants using various instruments were then analysed using an inductive approach as well as drawing on relevant literature to interpret the responses (Merriam, 2009). The themes which emerged were then organised and presented.

Informed consent was obtained from the participants for every aspect of the study and prior to the commencement of the study. Ethics approval was also obtained from the Nanyang Technological University Institutional Review Board (NTU IRB) for every aspect of the study and prior to its commencement.

## Participants

Childcare centres with programs for infant/toddler care located around Singapore were approached for the study. Due to the outbreak of hand, foot and mouth disease (HPMD), only 12 childcare centres agreed to participate in the study. At the end, there were 46 participants (12 supervisors, 12 educarers and 22 parents) who contributed to the study. All the childcare staff met the minimum educational qualifications and training (professional and specialised) requirements stipulated in the then MCYS licensing guidelines as shown in Table 1.

Four supervisors had between six and 10 years and eight supervisors had more than 11 years of early childhood teaching experience. Five educarers had between one and five years, six educarers had between six and 10 years and only one educarer had more than 11 years of early childhood teaching experience. Generally, all the childcare staff had extensive experience working with young children in centre-based programs.

Table 1. Childcare staff educational qualifications and training

Childcare staff	Educational qualifications	Professional training	Specialised training
Supervisor (12)	GCE 'O' Level (1) GCE 'A' Level/Polytechnic Diploma (4) Bachelor Degree (6) Master's Degree (1)	Certificate in ECCE (1) Diploma in ECCE (6) Bachelor in ECCE (5)	Certificate in Infant Training (5)
Educarer (12)	Secondary (10) GCE 'A' Level/Polytechnic Diploma (2)	Fundamental in ECCE (4) Certificate in ECCE (2) Bachelor in ECCE (1)	Certificate in Infant Training (10) Certificate in Nursing (1) Diploma in Nursing (1)

Legend: GCE 'O'/'A' Level: Singapore–Cambridge General Examination 'Ordinary'/'Advanced' Level  
ECCE: Early Childhood Care & Education

### Data collection and analysis

Data was collected from the supervisors, educators and parents using various instruments as follows:

*Interview:* To elicit their views, the participants were interviewed face to face using a semi-structured questionnaire.

For supervisors, educators and parents:

- What do you think is quality care for infants/toddlers?
- Some people say that 'care' is more important than 'education' when working with infants/toddlers. What do you think about this view?

For supervisors and educators only:

- Did you find your training program (professional and specialised) useful in your work? What areas of the program did you particularly find useful? Is there any particular area which you think could be covered more comprehensively?

*Observation:* Educators were also observed and videotaped for an hour during three visits. Their interactions with the infants/toddlers were rated using a *Checklist of interactions* in the dimensions of 'responsiveness', 'autonomy' and 'involvement' (Henry, 1996). The three dimensions of the interaction were further broken down into 12 sub-dimensions, with a score given to each (Brownlee et al., 2009). This checklist was used in a previous study carried out by Brownlee et al. (2009).

*Video review:* Additionally, the educators were also asked to review and comment on a video clip which showed a childcare staff member interacting with an infant/toddler. The video clip was selected from *Mia-Mia* which is used as a teacher-training resource (Macquarie University, 1996). Their views were elicited on the following:

- What do you think of the interactions between the caregiver and the infant/toddler?
- How do the interactions of the caregiver affect the infant's/toddler's development?
- What is your understanding of the terms 'responsiveness', 'autonomy' and 'involvement'?

The video review was carried out in addition to the interview to further reveal the educator's understanding of the nature of interactions and its contribution to infants'/toddlers' learning and development. Data from the interviews as well as the video reviews was transcribed and analysed. The themes that emerged were then reviewed in order to formulate judgements about the nature of the educators' belief systems (Brownlee et al., 2009, p. 459). Data collected from the educators' interviews and video reviews was then compared with data from the *Checklist for interactions* in order to formulate judgements about the extent to which their beliefs aligned with their practice. This made it possible to consider if beliefs shared in the interview were reflected in their practices (Brownlee et al., 2009, p. 460).

### Findings

The data collected was organised and presented in detail along four main themes as follows: (1) beliefs and practices for quality infant/toddler care; (2) beliefs about training for quality infant/toddler care; (3) parent–teacher partnership; and (4) video review.

#### Beliefs and practices for quality infant/toddler care

Supervisors, educators and parents were asked what they thought constituted quality care in infant/toddler programs. The two main themes which emerged were: (1) affective dimensions of quality infant/toddler care; and (2) programing for learning and development.

#### Affective dimensions of quality infant/toddler care

All supervisors, educators and parents thought that quality care in infant/toddler programs was related to meeting infants'/toddlers' physical and emotional needs such as love, attention and safe, healthy and hygienic environments as reflected in the following quotes:

... having an educator who really loves children and believes that having a relationship with the baby ... is the most important thing ... to help the child feel secure and confident (Supervisor 6).

... safety, cleanliness ... [and a] healthy environment ... [Have] appropriate toys [with], ... dangerous things kept away from the kids ... Appropriate tables and chairs ... Hygiene [and] ... clean our hands before feeding ... [as] children must wash their hands ... High chair, table ... Toys have to be washed, cleaned (Educarer 1).

... loving the child is quite important ... The child must feel happy ... [because] if he is happy, he will be able to learn things ... The care must be sincere (Parent 4).

When asked what their views about care and education were, eight supervisors felt that they were both equally important and four supervisors felt that care is more important. The opinions of the 12 educarers were split equally—half felt education and care were equally important and the other half felt care was the more important aspect. A few parents ( $n = 2$ ) felt that education is more important because care can be obtained at home. For the rest of the parents, nine felt that both are equally important whereas eight felt that care is more important due to their young age. A parent added that care is more important for now as the child is only an infant, but education will be more important once the child gets older. A husband-and-wife pair had opposing views. The wife felt that care is more important whereas the husband thought that both are equally important. Some of these views are illustrated in the following quotes:

Care and education; we cannot separate these two. In caring for the child, we are already educating the child and laying the foundation for better education ... Attachment, secure feeling and attention span; these come from care but they are also part of education (Supervisor 8).

Care is more important ... Education ... depending on their age ... They are still young, they need more care, need more food ... They must be healthy ... then we can educate them (Educarer 3).

Care [is more important] for his age now ... but when he gets out of infant care ... [we] will have to give more education (Parent 2).

### Programing for learning and development

Only two supervisors, an educarer and two parents referred to programing for learning and development as another dimension of quality care for infants/toddlers as depicted in the following quotes:

... develop their motor skills, language and cognitive skills ... [Include] ample space ... to create corners, play, move around (Supervisor 2).

... an infant needs to be taught ... scaffold ... Giving them that opportunity to explore ... will actually let them grow better (Educarer 2).

... let them play [and] ... don't mind about getting dirty ... What I call experiential learning ... I prefer an environment like this where they can come out and play (Parent 4).

Educarers were asked to describe their views on whether infants/toddlers are too young to do things by themselves. Interestingly, three educarers thought that it depends on their age; one educarer thought that infants/toddlers are too young to learn things on their own; and eight educarers disagreed that infants/toddlers are too young to do things by themselves and gave some examples, as reflected in the following quote:

... packing up of toys ... makes them feel independent and also [provides] a sense of belonging by actually participating ... [Also] taking a diaper, opening up their cubby and taking their clothes, of course with guidance (Educarer 10).

When asked about how they thought children learn, all educarers described it as through play, observation, exposure to different things, repetition, imitation and their five senses. Educarers were asked to describe how they knew when a child has learnt something and to give an example from their experiences. An educarer shared the following anecdote:

The mother said that in the car, they turn on the nursery rhyme, 'twinkle, twinkle little star' and the child was doing this [the twinkling action] ... The mom knows it comes from the school, so she comes back and shares (Educarer 2).

### Summary of beliefs and practices for quality infant/toddler care

All supervisors, educarers and parents expressed beliefs that quality in infant/toddler care comprised affective dimensions for infants/toddlers such as love, attention and safe, healthy and hygienic environments. However, only supervisors considered how these dimensions were important in promoting trust, security and comfort among infants/toddlers. When asked about their views on care and education dimensions in quality care, most supervisors, some educarers and a few parents said that they were both important. While a few supervisors, an educarer and a few parents believed that quality care was related to programing, none of them went on to explain why programing was important for infants'/toddlers' learning and development.

### Beliefs about training for quality infant/toddler care

Supervisors and educarers were asked about their own training experience; what aspects of their training they found useful; and what particular areas they thought could be covered more comprehensively to prepare them for work with infants/toddlers. The two main themes which emerged were: (1) training for comprehensive knowledge and skills; and (2) training through practice.

## Training for comprehensive knowledge and skills

There was a list of knowledge and skills that both supervisors and educators believed could be addressed more comprehensively in the training program (including the practicum).

Supervisors were asked to discuss their thoughts on how the Certificate/Diploma in Early Childhood Care and Education (CECCE/DECCE) or the Certificate in Infant/Toddler (CIT) training program has prepared the educators for working with infants/toddlers. While two supervisors thought that the program did prepare the educators, another two supervisors felt otherwise, as depicted in the following quote:

*They lack the routine care practice because it's all theory ... Even with a bachelor degree in early childhood, they can't change a diaper ... because all these are not taught in class ... I attended the class before; there's no demonstration at all, ... we weren't told how to do it, but we were asked to share and discuss it (Supervisor 10).*

Supervisors and educators were asked to discuss if they felt that the CIT training program was useful to their work. While some supervisors and educators thought that it was useful, others felt that only certain areas were useful such as routine care, planning activities, safety issues, developmental stages of the child and working with parents. Supervisors ( $n = 3$ ) and educators ( $n = 5$ ) pointed out the need for more information on observation skills and activities for infants/toddlers. Supervisors ( $n = 3$ ) expressed their views and concerns about the program lacking sufficient hands-on experiences. While three educators felt that all areas that were covered in their training sessions were sufficient, three supervisors and three educators felt that certain areas of the training program not covered included aspects of interaction with parents and better parental partnership, as reflected in the following quotes:

*... how to communicate with parents ... because a lot of our teachers don't know what to say to parents (Supervisor 5).*

*... communication with parents ... because when I started the course ... it didn't cover much ... I actually learnt from experiences, I learnt from mistakes that I made, what I was told by the parents (Educator 6).*

## Training through practice

In terms of the length of the training program, seven supervisors and only two educators thought that the program needed to be more in-depth and lengthened by introducing more activities for the child; whereas four supervisors and almost all the educators felt that the program was either just right or too long. When the educators were asked about what they thought about the length of the practical components, three educators

thought that the length was alright and four educators thought that it was too short. A supervisor and five educators had other thoughts and ideas with regards to the length and components in the practical training program, as illustrated in the following quotes:

*... could lengthen the practical component. It's a bit too short ... [so] should be done in concurrent ... Studying it and at the same time at the centre, you can visualise it better (Supervisor 3).*

*... a few hours for practical training is not enough ... [it] should be longer ... especially for those who are inexperienced (Educator 8).*

*The length of training is not important but the content for training is important ... When I am really on the job, I realised that a lot of things are not taught during the training and I need to find that out myself (Educator 7).*

Love for children, patience and passion for the job were attributes that most of the supervisors ( $n = 11$ ) and educators ( $n = 12$ ) thought that future trainees would need. Their advice for future trainees is presented in the following quote:

*... they must have the passion ... to teach children ... Helping them in their character, in their behaviour ... [and] helping them to see what is right and wrong ... We mould their hearts (Supervisor 6).*

Supervisors were asked to describe the things they did to support the work of the educators in their centre. While seven supervisors cited training as one of the many ways to support the educators, four supervisors supported their educators by having daily conversations, assuring them, conducting meetings and helping them out in little ways, like with paperwork. When asked to describe the sorts of 'input' or 'review' they provided for the infant/toddler program in the centre, some supervisors responded as illustrated in the following quotes:

*We will meet up monthly ... [to] give feedback for individual child's needs ... [and] look into the developmental checklist to see ... where the child should be at and work towards those goals ... In terms of materials ... they will tell me what they need ... to be replenished (Supervisor 3).*

*Every year end, we will send a survey to parents to give us their feedback and views for the year, ... anything they are concerned about or they want us to improve ... [and] will come up with it together with the teachers (Supervisor 2).*

## Summary of beliefs about training for quality infant/toddler care

Most supervisors and educators in the current study expressed views that practical experiences were important in training for infant/toddler care. Only a few of these supervisors were able to explain these practical experiences

in terms of learning processes which include understanding, thinking and reflecting. Educarers' views about training were focused mainly on the provision of knowledge and skills and their application in the field. Only a few supervisors also mentioned the processes of own learning, the relationship between theory and practice and the significance of certain practices. Almost all the supervisors and educarers felt that childcare staff must also have the love, patience and passion to work with infants/toddlers.

### Parent–teacher partnership

Parents were asked to describe the ways in which they support the educarers in the centre to provide quality care for their infants/toddlers. Some parents ( $n = 10$ ) supported educarers by frequent communication of various forms ranging from face-to-face sessions and email. A few parents ( $n = 5$ ) believed that being involved in school activities and cooperating with the educarer is a form of support for them. A parent felt that providing the educarer with freedom and the liberty to do what is best for her child is a way of supporting them. A few parents ( $n = 5$ ) who were interviewed did not do anything in particular to support the educarers. When probed further, a parent cited communication and building a good relationship as exhibiting support for the educarer as reflected in the following quote:

*The teacher will actually give us feedback ... my daughter knows this, she likes doing this ... so we will try to reinforce things that she likes ... We build a good relationship with the teacher because they are the people who have direct contact with my daughter* (Parent 16).

Parents made the following suggestions to improve the quality of infant/toddler programs at the centres: conduct a parent–teacher conference to discuss the development of their child; prepare a portfolio for their child; install a playground in the centre for the infants/toddlers; reduce the child-to-teacher ratio in the centre to ensure safety; and toilet-train their child earlier. A few parents ( $n = 8$ ) were satisfied with the centre's program and mentioned that they were satisfied with the centre in which their infants/toddlers were enrolled. When asked what parents looked out for when enrolling their child, two parents mentioned some preference towards younger educarers. Other parents provided the following feedback:

*Curriculum: ... they have done a better job than me taking care of my child ... I saw a lot of improvements in my child. Teachers here are very patient* (Parent 17).

*So far we are very happy with the program in the centre ... in preparing our kids for ... primary school* (Parent 3).

*I would prefer my daughter to develop in the school where there are properly trained professionals to guide her along ... Besides physically, besides education, but also morally ... be able to mix around* (Parent 8).

### Summary of parent–teacher partnership

This focus on parent–teacher partnership of training by supervisors and educarers is also in line with what parents wished for when they enrolled their infants/toddlers in centre-based programs. Many parents were generally satisfied with the care and education that their infants/toddlers received in the centre. While some provided suggestions on how the supervisors and educarers could further support them and communicate with them about their infant's/toddler's learning and development, only very few parents offered suggestions on how they themselves could contribute or support the supervisors and educarers in their work at the centre.

### Video review

A video review was carried out in addition to the interview, to further reveal the educarers' understanding of the nature of interactions and its contributions to infants'/toddlers' learning and development.

Educarers were asked to describe their thoughts on the interaction between the caregiver and the toddlers in the video clip. They responded that the caregiver was responsive, spoke good English, communicated well, was skilful (selected a rhyme which matched the activity which the children were involved in) and spontaneous (used the rhyme to teach vocabulary), as reflected in the following quote:

*She uses very good English, not like some of us here ... we use some 'Singlish' here and there ... When they were playing with the sand ... she sang a song related to what they were using ... and while singing the song, she also pointed out to the different parts of the teapot, the handle, the spout and stuff* (Educarer 5).

Educarers were asked to discuss how the interactions of the caregiver could affect the development of the toddlers in the video clip. All of the educarers thought that the interactions could have positive effects on the toddlers. One example is described in detail as follows:

*The teacher is communicating well ... [and] is also scaffolding. Like when the child is playing with the teapot ... there is an argument between the two children ... [so] the teacher re-directed the other girl to another teapot ... She added more fun in the learning ... [by], instead of telling them that this is a teapot and the characteristics of a teapot, she did it through singing where it will actually attract more attention and interest of the child* (Educarer 2).

When the educarers were asked about what they considered to be good caregiving practices, most cited safety, hygiene, love, care, respect and praise, as depicted in the following quote:

*The teacher is ... respecting the child ... Instead of helping her to scoop, she lets her do it ... [and] instead of scolding the two children, she respects their*

*emotions as they are at the egocentric level where they will snatch, so she understands the child ... tells them nicely ... [and] educates the child through good manners ... reinforcing good habits, like each time a child shares, you must praise them (Educarer 2).*

Three terms, 'responsiveness', 'autonomy' and 'involvement' were introduced to the educarers who were then asked to describe their understanding of those terms. Many educarers ( $n = 8$ ) misunderstood 'responsiveness' to mean 'children responding to their names when being called or to a familiar sound'. Other educarers ( $n = 4$ ) understood the term as 'responding quickly', 'giving a positive response to the child' or 'communicating/interacting with the child' as illustrated in the following quote:

*Responsiveness [means] you are responding to the child ... The child will feel that when I make a noise, I coo, I gurgle, I babble, I will get a response ... It's a two-way thing; the child responds and you respond ... and that is the start of the social interaction (Educarer 11).*

Some educarers ( $n = 6$ ) misunderstood 'autonomy' as 'having to prepare ahead' or 'having enough materials for the activity'. Other educarers ( $n = 6$ ) understood the term as 'allowing children to move freely to learn in any safe environment', 'giving children a chance to explore and learn' or 'letting children do things by themselves', as illustrated in the follow quote:

*Yes ... she allows the children to scoop ... and the other two children [are] free to roam, but I'm sure she keeps an eye on them as well ... Some autonomy for the children is very good; you need to give them a certain time until they need help, [or] you intervene (Educarer 11).*

Many educarers ( $n = 9$ ) misunderstood 'involvement' as 'educarers participating in the play activity', 'parents keeping educarers posted on their child's progress' or 'children gathering for group activities'. Other educarers ( $n = 3$ ) understood the term as 'giving children choices' or 'getting children involved in the activities' as illustrated in the following quote:

*The time when she sang the rhyme to the kids ... is when I think she is involved in the play with them ... Not stopping their play, introducing more interesting things to add to their play (Educarer 2).*

### Summary of video review

The educarers could easily identify the good practices in the video clip and describe the contributions of good practices to the infants'/toddlers' learning and development. However, many educarers were not able to articulate the nature of the interactions between the caregiver and toddlers using the appropriate terms, 'responsiveness', 'autonomy' and 'involvement'. Interestingly, of the three terms, they found 'autonomy' the easiest and 'involvement' the most difficult to explain.

## Discussion

A summary of the key findings as well as the limitations and implications of the study are presented and discussed as follows.

### Beliefs and practices for quality infant/toddler care

In this study, all the supervisors, educarers and parents shared the belief that affective dimensions were key determinants of quality care. Similar affective beliefs were also held by childcare staff in a number of previous studies (Brownlee et al., 2009). While the educarers enacted these affective dimensions in their practices, they did not explain why they were important or how these components affected the quality of infant/toddler care. However, some of the supervisors could explain why such dimensions were important but did not elaborate further.

When asked about their views on the care (affective) and education (cognitive) dimensions of quality infant/toddler care, most supervisors, half the educarers and some parents believed that both dimensions were equally important for infants/toddlers. However, they did not articulate the relationship between the care and education dimensions of quality care or why both dimensions were important to the holistic development of infants/toddlers. Additionally, only a few supervisors, an educarer and a few parents mentioned that programing was crucial for quality care and why it was important for infants'/toddlers' learning and development. During the observation of the educarers' practices, only a few educarers were rated as supporting 'involvement' (as compared to 'responsiveness' and 'autonomy') for the infants/toddlers through engaging them in learning activities. Since educarers work directly and closely with the infants/toddlers and would have the greatest impact on the quality of care in the centre-based programs, it is important to understand and discuss their beliefs and practices in more detail.

Educarers did not view quality infant/toddler care as comprising both the care and education dimensions because they could have thought that parents expected them to meet the physical and emotional needs of infants/toddlers while they were at work. They did not focus on the provision of intellectual stimulation and learning for infants/toddlers as they could have also thought that education was for older children (Milgrom & Mietz, 2004). Nyland (2004) believes that this thinking could be due to the strong focus on attachment theory in training programs for infant/toddler care. Such a focus could project the image of the child as being vulnerable and helpless in the absence of his/her mother (Nyland, 2004). Press (2006) argues that while the child has the right to 'provision and protection', he/she must be viewed as a competent and active being/learner (p. 49).

Additionally, educarers' emphasis on care dimensions of quality care could suggest less sophisticated

epistemological beliefs about knowing and knowledge (Entwistle, Skinner, Entwistle & Orr, 2000). Hence, in order to view quality as comprising care and education dimensions, educators' beliefs need to be underpinned by more sophisticated epistemologies which view knowledge and practice as complex, tentative, evolving and evidence-based (Kuhn & Weinstock, 2002). Such a view is usually linked to the image of the childcare staff as a researcher (Moss, 2006) and involves a critique of multiple perspectives (Berthelsen et al., 2011; Brownlee et al., 2009).

### **Beliefs about training for quality infant/toddler care**

Supervisors and educators did not differ much in the way they viewed the acquisition of knowledge and skills in training programs. They seem to view training as the transmission of knowledge and skills. Such a view about training could suggest less sophisticated epistemological beliefs about knowing and knowledge (Brownlee et al., 2009).

Additionally, both the supervisors and educators indicated that practical experiences were important in training for infant/toddler care. This focus on the practical aspect of training by supervisors and educators is similar to what Misko (2001) found in a study of childcare workers' perceptions of childcare training in Australia. The childcare workers in her study indicated that 'practical experience was always or almost always the best part of the program' (p. 26).

Hence, it is proposed that during the training in infant/toddler care, educators could be encouraged to view themselves as a researcher constructing a base of knowledge and practice through evidence-based learning and critical reflection. It is also proposed that educators be encouraged not to rely on their 'maternal instincts' and not to view themselves as a 'substitute mother' (Brownlee et al., 2009, p. 470).

### **Limitations of the study**

Although this study is a good start and would provide insights into and make a contribution to early childhood education in Singapore, readers should be aware of the following limitations of the study.

This study cannot be generalised to every situation, as the sample was small (46 participants comprising 12 supervisors, 12 educators and 22 parents). However, measures were taken to ensure that all sampling decisions were made within the constraints of ethics and feasibility. Additionally, measures were also taken to ensure that researcher bias was kept to a minimum by constantly referring to the purpose of the study, literature, research questions and asking many questions throughout the study, as well as providing as much information as possible on the collection, analysis, interpretation and reporting of data.

Hence, the 'burden of transferability' is left to the reader of this study to determine the degree of similarity between the setting of this study and the setting of the intended study (Mertens, 1999, p. 183).

### **Implications of the study**

This study supports the idea that epistemological beliefs and levels of childcare staff's qualifications and training (professional and specialised) are related (Saracho & Spodek, 2007; Whitebook, 2003). Educators in this study demonstrated more objectivist beliefs as compared to supervisors who held more evaluativistic beliefs. Consequently, supervisors who had higher qualifications and training seem to hold more sophisticated epistemological beliefs.

Hence, it is suggested that training programs in infant/toddler care for childcare staff should focus on developing more evaluativistic beliefs (Brownlee & Berthelsen, 2006; Brownlee et al., 2009). It is also suggested that training programs could be designed to promote childcare staff as researchers or co-researchers with children, families and the community (Moss, 2006). However, it is suggested that childcare staff's pre-existing beliefs about quality infant/toddler care should be investigated first.

Besides focusing on preparatory training alone, continuing training and professional consultations during practice should also be considered (Moss, 2000). There is some evidence that mentoring and coaching could have an impact on quality care (Campbell & Milbourne, 2005; Fiene, 2002; Kreader, Ferguson & Lawrence, 2005; Ramey & Ramey, 2006). There is also some evidence that issues related to the positive image and recognition of childcare staff within the community could have an impact on quality care (Ang, 2012; Goodfellow, 2000). Hence, it is suggested that besides equipping childcare staff with the necessary knowledge and skills, training programs should also look into improving the image of the childcare staff as well as engaging them in the 'wisdom of practice through reflection and self-evaluation' (Brownlee et al., 2009, p. 471).

The results from this study (together with the EYDF introduced by the then MCYS in 2011) could be used to review the quality of care for infants/toddlers in centre-based programs as well as quality of training programs which prepare childcare staff for work with infants/toddlers.

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