

Work-Related Factors as Determinants of Self-efficacy and Resilience among Selected Filipino Child Development Workers

Katherine del Rosario

University of the Philippines Los Baños, Philippines

Nephtaly Joel Botor

University of the Philippines Los Baños, Philippines

Jewely Jean Padilla

University of the Philippines Los Baños, Philippines

Aida Escobin

University of the Philippines Los Baños, Philippines

Daisy Pelegrina

University of the Philippines Los Baños, Philippines

Abstract

This descriptive associative study focused on work-related factors as determinants of self-efficacy and resilience among 58 purposively-sampled Child Development Workers (CDWs). It specifically aims to profile the CDWs based on various work-related variables, to determine their psychosocial needs, resources, levels of self-efficacy and resilience, and to verify the association and relationship of these variables in relation to self-efficacy and resilience. A questionnaire, comprised of questions on perceived needs and resources and work-related aspects, a modified version of Bandura's (2006) Teacher Self-Efficacy Scale, and Smith et al.'s (2008) Brief Resilience Scale, were group administered to the participants. Thereafter, results were analyzed using descriptive and correlation statistics. Results showed that respondents were divided almost equally between the low- and high-scoring groups in both self-efficacy and resilience. Notably, respondents' resilience and self-efficacy mean scores were relatively higher than the expected average score. Correlation further revealed moderate positive relationship between self-efficacy and resilience ($r = 0.333$). In terms of work-related factors, many of those with high self-efficacy and high resilience scores reported also having: (a) supportive barangay officials, (b) cooperative day care children's parents, (c) satisfaction with pupils, (d) job satisfaction, and (e) life satisfaction in general. As a conclusion, the majority of the 58 selected CDWs reported satisfaction in work-related factors related to the children they cater to, and also work and life in general. In addition, CDWs who had high scores in self-efficacy and resilience reported having support, cooperation and satisfaction.

Keywords: self-efficacy, resilience, child development worker, early childhood care and development

Introduction

Early childhood is a crucial stage primarily because of the rapid development in major developmental domains: physical, cognitive, and socio-emotional, among others. It is a sensitive period of limited duration in which the brain is highly plastic and greatly influenced by experience (Knudsen, 2004). It is also believed to be at this stage that stimulation provided to children within this period will have long lasting effects on learning and behavior.

The crucial nature of early childhood underscores the role played by significant persons involved in child rearing. Among these are the Child Development Workers (CDWs). More commonly known as Day Care Workers (DCWs), CDWs play a significant role in the delivery of early childhood care and development services. They are tasked to supervise the Day Care Centers (DCCs) in every barangay, while being also called to assist in other community affairs, e.g., disaster response (Quismorio, 2014).

Early childhood care and development (ECCD) service providers, particularly Day Care Workers, aptly referred to as Child Development Workers as promulgated in the Early Years Act of 2013 (Philippine Congress, 2012), are key players in holistically addressing the needs of the Filipino child, especially the very young. It is, therefore, necessary to understand the issues relevant to their life and work as child care providers so that support and interventions can be designed and implemented, geared towards enabling them to optimally function in a demanding working environment and empowering them to develop as individuals and professionals in the childcare profession. Unfortunately, there has not been extensive research about CDWs in the Philippines. Empirical investigations on the plight of Filipino CDWs are available, albeit scant, including Abulon's (2013) survey on the status of barangay Day Care Centers in the country, Cadosales' (2011) study on teaching needs of Day Care Workers), and Reyes' (1996) analysis of variables influencing the implementation of day care policy in one of Philippine regions.

Day care centers in the Philippines, unlike in Western countries, have a quite different identity. While in most countries the day care is nothing more than a venue in which working parents can temporarily enroll their children to be supervised while away for work, in the Philippines, the increasing number of day care centers manifests the country's commitment to promoting early childhood education (Abulon, 2013). There are almost 33,000 day care centers in the country (Quismorio, 2014), under the supervision of the Department of Social Welfare and Development (DSWD), which are manned by CDWs. Apart from their identity as learning venues for very young children, the DCCs are also a platform for other social services as health, nutrition and safety. This only underscores the multiple and quintessential responsibilities taken by the CDW.

Unfortunately, while the role of CDWs in the community is apparent and significant, there are only a few available studies involving or pertaining them (Abulon, 2013; Cadosales, 2011; Elarco, 2014). The present study envisioned contributing to the discussion on the issues and concerns faced by CDWs in the country. It desired to contribute to the literature on child development profession in the Philippines by exploring dimensions of CDWs' experiences in the work place. On one hand, it recognized the necessity to look into factors that may promote or hinder CDWs' tasks as ECCD service providers. On the other hand, it found meaning in seeing how child care professionals perceive their ability to influence their working environment, more so, how capable they are in responding to adversities in the workplace.

With these premises, the study paid attention to two pivotal constructs: self-efficacy and resilience.

Self-efficacy, which pertains to “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1977, p. 3), is deemed as a formidable predictor of behavior (Bandura, 1997, as cited in Henson, Kogan & Vacha-Haase, 2001). It has been widely researched in the field of education, more specifically as the context-specific construct *teacher self-efficacy*. Defined as “the degree to which teachers believed the environment could be controlled” (Gibson & Dembo, 1984, p. 570), teacher self-efficacy is deemed as “self-regulatory” and as influential to teacher behavior and performance (Gavora, 2010, p. 17). Pre-school teachers who reported high self-efficacy are found to have planning skills, be more enthusiasm in their teaching endeavors, and to be highly innovative, and creative (Kihoroli & Bunyi, 2017).

In the context of early childhood care and development, self-efficacy has been found to associate with variables such as child care providers’ desire to stay in the profession, especially when paired with job satisfaction and supervisor support (Chen & Scannapieco, 2010) and job satisfaction and burnout (Skaalvik, E.M. and Skaalvik, S., 2010). It has also been associated with children’s learning outcomes as they learn language (Guo, Piasta, Justice, & Kaderavek, 2010) and with mothers’ psychological outcomes as they balance responsibilities at work and in child rearing (Ozer, 1995). Reciprocally, self-efficacy among childcare providers is influenced by professional experience, perception of collaboration, and children’s engagement (Guo, Justice, Sawyer, & Tompkins, 2011), as well as professional development (Muñez, Bautista, Khiu, Keh, & Bull, 2017), among others. Likewise, self-efficacy level is mediated by the nature of relationship between the parent and the early childhood educator (Chung, Marvin, & Churchill, 2005). In the Philippines, where CDW’s also act as learning facilitators (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2007), contextualizing teacher self-efficacy as applied in the day care situation is fitting.

Resilience is another variable gleaned as essential among professionals working with very young children. This term has been diversely defined and used in various disciplines, but the most basic of its definitions, which was adapted in the context of this study, is that it pertains to people’s “ability to bounce back and recover from stress...and return to previous level of psychologically healthy functioning” (Boyle, et al. 2014, p. 301, citing Carver, 1998, and Smith et al., 2008 and). Considering the multifold function of the CDW and the arduous nature of the child care profession (Levy & Poertner, 2014), exploring DCWs’ resilience is substantial in discovering their needs, concerns and professional satisfaction amidst a stressful work environment (Hegney, Rees, Elay, Osseiran-Moisson, & Francis, 2015). In the context of child care profession, a study by Bouillet, Ivanec and Miljević-Riđički (2014), revealed that, at the average, child care professionals, that is, child care educators, rated themselves as having high levels of resilience. The same authors further found that those who perceived being highly resilient also evaluated themselves as capable of fostering resilience among children. Resilience was found to be quantitatively associated with life satisfaction (Özbey, Büyüktanir, & Türkoglu, 2014), hope and positive behaviors (Hsing-Ming & Mi-Tao, 2008); and, qualitatively, with teachers’ agency, freedom, hope and trust (Sumsion, 2004). In turn, supportive working environment (Bouillet et al., 2014) and capacity building activities such as training (Hraha, 2012) were found to be promoters of resilience.

By and large, it can be gathered from the brief review of empirical findings that there are interactions between self-efficacy and resilience, and other work-related factors. The present

study, with the goal of augmenting gaps in understanding the experiences of CDWs in the country, explored the profile of selected Filipino CDWs in terms of work-related factors deemed as reciprocal determinants of efficacy and resilience among childcare professionals and illustrated the nature of associations between and among self-efficacy, resilience, and these work-related factors. Specifically, it attempted to answer the following research questions:

1. What is the profile of the selected CDWs in terms of perceived barangay support, perceived parental cooperation; and satisfaction about the physical workplace, the children they cater to, their job, and their life in general?
2. What are the psychosocial needs and resources of the CDWs?
3. What are the levels of self-efficacy, its subscales, and resilience among the selected CDWs?
4. How do work-related variables associate with self-efficacy and resilience?
5. What is the nature of relationship between self-efficacy and its subscales, and resilience?

By answering these research questions, the study hopes to contribute to the scant literature on day care in the Philippines and to provide insights towards the development and implementation of initiatives to empower and build capacities of CDWs.

Methods

Research Design

The study employed descriptive associative method to depict the profile of work-related factors, levels of perceived self-efficacy and resilience; and, the nature of associations among the study variables.

Study Participants

Fifty-eight (58) CDWs who were participants to a capacity building program for DCWs were purposively selected as respondents in this study.

Scope and limitations

This study was only limited to CDWs from selected areas in Southern Tagalog. It only focused on the respondents' perceived self-efficacy and resilience in relation to their work experiences. Since the sample was not randomly selected, correlation coefficients were used as descriptive statistics.

Measures

The study used a questionnaire consisting of: agreement/disagreement questions on barangay support, parent cooperation, and satisfaction with physical environment, children, job, and life; a modified version of Bandura's (2006) Teacher Self-Efficacy Scale (alpha of .93 in this sample); and Smith, et al.'s (2008) Brief Resiliency Scale (alpha of .84 to .90, in Smith et al., 2008; alpha of .59 in this sample).

Data Gathering and Analysis Procedure

The questionnaires were group administered among the respondents in one of the capacity building sessions they attended. Ethical implementation of the study was ensured by making sure that informed consent was sought and the significance and use of the survey were discussed. Participants were informed about the nature and purpose of the study and their identities were not revealed in any part of this report to ensure anonymity and confidentiality.

After data collection, data were analyzed using descriptive and correlation statistics. Associations between work-related factors and the levels of self-efficacy and resilience were described using cross-tabulations. Relationship among the summative scores on the self-efficacy and resilience scales was on the other hand explored using Spearman rank-order correlation.

Results, Interpretation, and Discussion

Profile of the Study Participants across Work-Related Factors

The first research question inquired about the profile of the study participants in each of the work-related factors explored in this study, especially on areas of support, cooperation and satisfaction. To address this research problem, a set of agreement/disagreement questions were asked so that respondents can express assent or dissent based on their experiences. Table 1 presents the frequency of respondents' distribution according to their agreement/disagreement on the various work-related factors.

Table 1 : Agreement or disagreement on attitude questions on work-related variables

Work-Related Variables	Agree/Yes f (%)	Disagree/No f (%)
Supportive barangay officials	39 (67.2)	19 (32.8)
Cooperative parents	37 (63.8)	21 (36.2)
Satisfying physical working environment	31 (53.4)	27 (46.6)
Satisfying day care pupils	46 (79.3)	12 (20.7)
Satisfying job	55 (94.8)	3 (5.2)
Satisfying life, in general	57 (98.3)	1 (1.7)

As reflected in Table 1, almost all of the respondents perceived themselves as having a satisfying job and a satisfying life. A large number also shared being satisfied with the children they cater to in the day care. These results aligned with the findings of Abulon (2013), which revealed that despite the lack of monetary rewards, Filipino DCWs manifest high satisfaction with their work and life as child development service providers.

Interestingly, while the majority of the respondents were on the affirmative side, they were somewhat divided in terms of perceived support from barangay, of perceived cooperation of day care children's parents, and of their satisfaction with the physical workplace (i.e., physical structure of the DCC). This implies that the CDWs' experiences on the supportiveness and cooperativeness of stakeholders in their community tend to be variable. Although there were more who perceived support and cooperation, a nearly equal number of respondents perceived otherwise. This entails that support and cooperation have to be further explored on a case-to-case basis such that conducting local researches at the barangay-level might provide additional knowledge about the dynamics between and among ECCD stakeholders. It must be noted that Philippine ECCD policy urges parents and local government officials to prioritize the provision of needs among the very young both through home-based and center-based programs (Philippine Congress, 2012). Gaining insights on how stakeholders work towards achieving ECCD goals is favorable.

Another salient point that can be gleaned from the results is the noticeable divide among the respondents regarding their satisfaction about the physical structure of the DCCs. Studies have shown how significant the physical environment is in learning and in the holistic development

of the child (World Health Organization, 2004; Higgins, Hall, Wall, Woolner & McCaughey, 2005). Interestingly, improving the built environment also demands communication and collaboration among stakeholders that include parents and community officials (Higgins, et al., 2005; World Health Organization, 2004). Hence, it might be an interesting direction to see in future research how levels of support and cooperation relate to, or even predict, satisfying physical environments in center-based programs such as day care, and, probably, how a satisfying physical environment relates to DCWs' and day care children's educational outcomes. Appropriate attention and planning of the classroom are needed for the learning to meet its goals and needs (Puteh, et.al, 2015).

Perceived Psychosocial Needs and Resources

The second research question explored the perceived needs and resources of day care workers. In general, the study found that needs and resources pertain to any of the following dimensions: financial, material/physical, knowledge, people, and/or personal traits.

Perceived Needs. Respondents were asked to identify needs in order of priority by answering the question: What are your needs as a Day Care Worker? Responses were content analyzed and there were four major categories identified: physical/material, financial, knowledge and people. Strings of statements by the respondents were tallied per category, the frequency distribution of which is presented in Table 2.

Table 2: Frequency distribution of respondents according to perceived topmost needs

Category of Needs	Topmost need	
	f	%
Physical/Material	28	48.28
Financial	16	27.59
Knowledge	9	15.52
People	3	5.17
No response	2	3.45

Physical/Material. Statements pertaining to physical/material needs appeared with the highest frequency in all levels of priority. More than 48% of the respondents indicated physical/material needs as their topmost need. Needs which pertained to physical/material needs that were identified by the respondents were *learning materials, school supplies, toys, books, paintings/murals, DCC classrooms, kitchen, playground, sound system, blackboard, comfort room, and renovation of classroom.*

Financial. Some 27.59% of the respondents noted as their first priority statements, which pertain to financial/fiscal needs. Examples of actual statements falling under this category as written by participants are as follows: *money, budget, financial assistance, and honorarium.*

Knowledge. Almost 16% of the respondents identified as their first priority needs that fall under the Knowledge category. Examples of actual statements written by participants and which fall under this category are as follows: *seminars, more knowledge, learning, how to do first aid, and techniques how to handle children.* The present study did not ask in detail what kind of training the respondents wanted to have although behavior management and first aid administration were specifically identified. Managing children's learning and behavior was among the problems in day care development programs suggested by Elarco (2011). On the other hand, the study of Cadosales (2011), identified content delivery, specifically "teaching

the letter sound” (p. 252), as among the activities for enrichment needed by child development workers. Child development workers seem to recognize the need for higher education, training and expertise (Boyd, 2013) to be able to perform their roles better. Early childhood educators are concerned in many different complex skills needed in teaching as well as looking at different issues in their students’ speech, language, behavior and others.

People. A category that was least mentioned by respondents as a first priority but which came as a second frequently mentioned need as a second and third priority, was People. Interestingly, while only a little more than 5% of the respondents identified needs related to people as their first priority, approximately 12% of them noted it as a second priority while almost 7% of them noted it as a third priority. People-related needs mentioned by respondents were *cooperation of parents* and *barangay officials*.

Perceived Resources. Likewise, respondents were asked to identify their topmost resources by answering the question: What resources do you have? Content analysis of the responses revealed four major categories: physical/material, people, financial and personal traits, as presented in Table 3.

Table 3: Frequency distribution of respondents according to perceived topmost resources

Category of Resources	Topmost need	
	f	%
Physical/Material	15	25.86
People	13	22.41
Financial	8	13.79
Personal Traits	6	10.34
No response	16	27.59

Physical/Material. Statements pertaining to physical/material resources appeared with the highest frequency as the topmost resource (26% of the respondents). Responses that pertained to physical/material resource as identified by the respondents were *recycled materials, old materials, day care center, surroundings, visual arts, TV* and *comfort room*.

People. Garnering the second highest frequency as a topmost resource identified by 22.41% of respondents, people appeared to be a quintessential resource among CDWs. *Mother, child, parents, barangay officials, barangay captain, CDW, and DSWD officials* were among the people-related resources identified by the respondents.

Financial. With the third highest frequency as a topmost resource noted by almost 14% of the respondents, financial resource was also mentioned. Among the responses which fell under this category were *personal income, parents’ contribution, and registration/entrance fee*.

Personal Traits. While only noted by 10.34% respondents as a topmost resource, personal traits were also among the notable resource worth mentioning. Among the personal traits identified as a resource were *helpful, talent in being a mother, inner strength, political will, willingness to learn, experiences, generosity* and *cooperation*.

Levels of Self-Efficacy, Self-Efficacy Subscales, and Resilience

The third research question in this study focused on the levels of self-efficacy and resilience among the respondents. Table 4 shows respondents’ frequency distribution as well as the cross-

tabulation between self-efficacy and resilience levels. Low level in a variable was defined as having a score on or below the mean ($\leq M$) while high level was defined as having a score above the mean ($> M$), as determined through the samples' distribution. Table 5, on the other hand, presents the mean scores of the study participants in self-efficacy, self-efficacy subscales, and resilience.

Table 4: Cross-tabulating self-efficacy levels with resiliency levels

Resilience Level (R)	Self-Efficacy Level (SE)		
	Low f (%)	High f (%)	TOTAL
Low	14 (24.1)	13 (22.4)	27 (46.6)
High	13 (22.4)	18 (31.0)	31 (53.4)
Total	27 (46.6)	31 (53.4)	58 (100)

Frequency distribution shows that respondents were divided almost equally between the Low and High Scoring groups in both self-efficacy and resilience. Similarly, cross-tabulation shows that categorizing respondents to self-efficacy levels while considering resilience levels, also divided the respondents nearly equally on four groups: High Efficacy-High Resilience (31%), Low Efficacy-Low Resilience (24.1%), High Efficacy-Low Resilience (22.4%) and, Low Efficacy-High Resilience (22.4%).

Table 5: Descriptive statistics on participants' self-efficacy and resilience scores

Study variables	Range of expected scores	M	SD
Self-efficacy (SE)	30-150	121.65	13.30
Efficacy to influence decision-making	2-10	8.45	1.01
Instructional efficacy	9-45	36.66	4.51
Disciplinary self efficacy	3-15	12.79	1.48
Efficacy to enlist parental involvement	3-15	12.33	1.85
Efficacy to enlist community involvement	4-20	13.36	2.96
Efficacy to create a positive school climate	8-40	34.17	4.52
Resilience	6-30	20.88	3.36

Viewing levels of self-efficacy and resilience using measures of central tendency, however, revealed that, at the average, respondents had a mean Self-Efficacy score of 121.65 (SD=13.30) and a mean Resilience score of 20.88 (SD=3.36). These were relatively higher than the expected average score in the scales, which is 90 for self-efficacy and 18 for resilience. The same was true for all the self-efficacy subscales where respondents gained mean scores higher than the expected average scores in the subscales. Perception of high resilience among child care providers has already been mentioned by Bouillet, Ivanec and Miljević-Ridički (2014).

What the current finding offers as a novel insight is how the CDWs perceived their self-efficacy. Apparently, the respondents believed that they are highly self-efficacious, in general, and even in aspects of decision-making, instruction, discipline, encouraging community and parental support, and creating a positive climate in the day care. These results may gain light when viewed against earlier findings associating self-efficacy and life and job satisfaction (Chen & Scannapieco, 2010). Although there was no attempt in the present study to

sophisticatedly associate satisfaction and efficacy, it must be noted that the respondents reported high satisfaction about their job and life, and this might just link with their high level of self-efficacy and vice versa. Henceforth, an interesting direction to pursue is to further establish the interaction between work-life satisfaction and efficacy among Filipino DCWs using elaborate psychometric measures to establish how strong and generalizable this association is.

Work-Related Factors, Self-Efficacy, and Resilience

The fourth research question problematized how the various work-related variables explored in this study relate with self-efficacy and resilience. Since the respondents were purposively selected, more sophisticated statistical measures of association could not be employed. Hence, descriptive cross-tabulation was used to glean interactions that may reveal points of interest in future studies. Emphasis in the discussion was given on respondents who fell under high efficacy (31 of 58) and high resilience (31 of 58) groups.

Table 6: Cross-tabulating self-efficacy and resiliency levels with perceived support from barangay

Perceived Support from Barangay	Self-Efficacy Level (SE)			Resilience Level (R)		
	Low f (%)	High f (%)	Total	Low f (%)	High f (%)	Total
Unsupportive	9 (15.5)	10 (17.2)	19 (32.8)	9 (15.5)	10 (17.2)	19 (32.8)
Supportive	18 (31.0)	21 (36.2)	39 (67.2)	18 (31.0)	21 (36.2)	39 (67.2)
Total	27 (46.6)	31 (53.4)	58 (100)	27 (46.6)	31 (53.4)	58 (100)

Notably, 21 of 31 or some 68% of those with high level of self-efficacy, and 21 of 31 or some 68% of those with high level of resilience perceived officials in their barangay as supportive. Policy-wise, the Philippine government, through the Republic Act No. 6972, otherwise known as Barangay-Level Total Development and Protection of Children Act, (Philippine Congress, 1990), stresses the involvement of the barangay, in the promotion of child care and development goals, through the establishment of the DCCs, now referred to as the child development centers. The immediate community is a source of support to the caregivers in community-based childcare center, which, in turn, serves as a doorway for the provision of other social services that relate to health, nutrition, water and sanitation and the like (Munthali, Mvula, & Silo, 2014). Hence, when the child development worker deems barangay officials as supportive to the projects and activities of the DCC, the former becomes more confident that s/he will be able to achieve the desired outcomes for the day care, and will also be spirited enough even when faced with challenges.

Notwithstanding the role the barangay plays in teacher self-efficacy and resilience, Reyes (1996), in an evaluation of the implementation of day care policy in the Philippines, however, suggested that looking at smaller units such as “purok” or zones, rather than the barangay, as target areas for the creation of DCCs might make the day care program more manageable. From this, it can be speculated that, perhaps, barangay governments’ cooperation with the day care worker might also be challenged by confounding priorities, which can possibly be addressed by engaging a smaller group of families to own the day care program and be deeply involved in it. This leads to the issue of parental cooperation.

Table 7 : Cross-tabulating self-Efficacy and resiliency levels with perceived parental cooperation

Perceived Parental Cooperation	Self-Efficacy Level (SE)			Resilience Level (R)		
	Low f (%)	High f (%)	Total	Low f (%)	High f (%)	Total
Uncooperative	11 (19.0)	10 (17.2)	21 (36.2)	10 (17.2)	11 (19.0)	21 (36.2)
Cooperative	16 (27.6)	21 (36.2)	37 (63.8)	17 (29.3)	20 (34.5)	37 (63.8)
Total	27 (46.6)	31 (53.4)	58 (100)	27 (46.6)	31 (53.4)	58 (100)

In this study, the majority of the respondents with high efficacy and with high resilience also perceived that parents in the day care were cooperative (21 of 31 or appx. 67%, and 20 of 31 or appx. 65%, respectively). There was no available literature explaining this result in the context of CDWs' work. However, studies on elementary school teachers noted that there is positive relationship between teacher self-efficacy and parent support (Stipek, 2012). On the other way around, a study among preschool teachers noted that the teacher also has to strategize to enhance parental involvement, thereby also making parents more self-efficacious (Pelletier & Brent, 2002). Most importantly, the day care worker and the day care parents have to dialogue and level off in terms of what parental involvement means, as a study also showed that parental involvement is perceived differently by various stakeholders (Herrell, 2011).

Table 8. Cross-tabulating self-efficacy and resiliency levels with perceived satisfaction

Satisfaction	Perceived Satisfaction	Self-Efficacy Level (SE)		Resilience Level (R)	
		Low f (%)	High f (%)	Low f (%)	High f (%)
Physical structure of the DCCs	Unsatisfied	12 (20.7)	15 (25.5)	12 (20.7)	15 (25.5)
	Satisfied	15 (25.9)	16 (27.6)	15 (25.9)	16 (27.6)
Children being catered to	Unsatisfied	7 (12.1)	5 (8.6)	4(6.9)	8(13.8)
	Satisfied	20 (34.5)	26 (44.8)	23 (39.7)	23 (39.7)
Job as a day care worker	Unsatisfied	0 (0)	3 (5.2)	1(1.7)	2 (3.4)
	Satisfied	27 (46.6)	28 (48.3)	26(44.8)	29(50.0)
Life, in general	Unsatisfied	0 (0)	1(1.7)	0 (0)	1(1.7)
	Satisfied	27 (46.6)	30(51.7)	27 (46.6)	30(51.7)

Most importantly, many of those who fell into the group with high efficacy and high resilience also perceived being satisfied in various aspects of their work life such as with the pupils they cater to (26 of 31, and 23 of 31, respectively), with their job (28 of 31, and 26 of 31, respectively), and with their life in general (30 of 31, and 30 of 31, respectively). Skaalvik, E.M. and Skaalvik, S. (2010) gleaned that job satisfaction links well with self-efficacy, especially among teachers. Resilience has also been deemed as associated with job satisfaction among nurses (Matos, Neushotz, Griffin, & Fitzpatrick, 2010), and happiness among preschool teachers (Mojdegan, Moghidi, & Ahghar, 2013). In the study among preschool teachers, Yousofi, Rezaei, and Yonesi (2014) found that self-efficacy is a correlate and predictor of job satisfaction. Remarkably, they also found job motivation as related to efficacy. In the case of the CDW, it may be interesting to further explore what are their motivations at work, which make them highly satisfied. In the present study, being with children was gleaned as satisfying.

It might be explored more comprehensively in succeeding research as a potential job motivator associated with efficacy and resilience, especially that caring for others, i.e., the children one caters to, is deemed as a source of well-being for teachers (Nilsson, Ejlertsson, Andersson, & Blomqvist, 2015).

Having gleaned the profile of work-related factors vis-à-vis levels of self-efficacy and resilience, it can be said that, in this particular study, highly efficacious and resilient CDWs are characterized as having: supportive barangay officials; cooperative day care children's parents; satisfaction with pupils; job satisfaction; and life satisfaction in general.

Intercorrelations among Self-Efficacy, Self-Efficacy Subscales, and Resilience

The fifth and last research question in this study desired to describe the nature and magnitude of association between and among self-efficacy, its subscales, and resilience. After testing for assumptions, correlation was calculated using the Spearman rank-order technique. Table 9 presents the correlation coefficients derived from this analysis.

Table 9: Correlations among self-efficacy, self-efficacy subscales, and resilience

Study Variables	DM	IE	DE	PI	CI	SC	Resilience
Self-efficacy (SE)	.592	.896	.660	.729	.678	.902	.333
Efficacy to influence decision-making (DM)		.496	.219	.318	.383	.545	.119
Instructional efficacy (IE)			.579	.624	.425	.789	.274
Disciplinary self-efficacy (DE)				.547	.399	.544	.201
Efficacy to enlist parental involvement (PI)					.441	.580	.308
Efficacy to enlist community involvement (CI)						.474	.252
Efficacy to create a positive school climate (SC)							.358

Correlation analysis revealed that self-efficacy has a positive moderate correlation with resilience ($r = 0.333$), such that along with the increase in the respondents' belief that s/he is able to perform tasks as a child development worker was also an observable increase in her/his perceived ability to bounce back from adversities, vice versa. This result supports the earlier findings of Mojdegan, Moghidi, and Ahghar (2013), which established significant relationship between self-efficacy and resilience among preschool teachers in Iran, and the results of the study of Kusma, Groneberg, Nienhaus, and Mache (2012), which revealed positive correlation between self-efficacy and resilience among early childhood educators.

According to Bandura (1997, 1977), self-efficacy predicts behaviors. When understood from the context of CDWs who are faced with various responsibilities, having a belief that one is capable of influencing various dimensions of work and profession (self-efficacy) may be necessary in reassuring oneself that one is capable of thinking, planning and executing activities that would unlock difficulties and challenges (resilience). Similarly, a child development worker who perceives oneself as capable of transcending adversities (resilience) may tend to feel more abled in influencing one's working environment (self-efficacy).

Exploring specifically on the self-efficacy subscales provides additional information as to how this link between resilience and self-efficacy might ensue. Among the subscales, efficacy to

involve parents ($r = 0.308$) and efficacy to foster a positive learning climate ($r = 0.358$) were the ones which resilience had positive moderate correlation with. This is consistent with the earlier result of the cross-tabulations on self-efficacy and parental involvement. As parents are perceived as more cooperative, the DCW might feel more adequate in influencing parental involvement, hence, gain confidence in one's ability to face adversities side by side with the day care children's parents. The day care children's parents might act as social support upon which the day care worker can rely in challenging times, especially in concerns related to child care and development. In conjunction with this parent-CDW relationship is also the ability of the DCW to establish an environment nurturing enough for collaboration to take place, as well as, conducive enough for the delivery of effective services for the day care children.

Furthermore, looking at the inter-correlations among the self-efficacy subscales, it could be gleaned that efficacy to influence decision making had a high positive relationship with fostering positive school climate ($r = 0.545$), while low to moderate positive relationship with the rest. Hughes and Pickeral (2013) noted that positive school climate is a shared responsibility among the different stakeholders. Hence, a DCW who finds oneself efficacious in making decisions, that is, having sufficient share of power and responsibility within the working environment, may also tend to feel efficacious in promoting a positive and conducive climate in the day care environment.

Instructional self-efficacy, on the other hand, had *high* positive relationship with most of the subscales, with correlation coefficients ranging from 0.579 to 0.789, except with community involvement with which the relationship was moderate positive. Disciplinary self-efficacy also had moderate to high positive relationship with several subscales, except with influencing decision-making ($r = 0.219$) and encouraging community involvement ($r = 0.399$), with which it had low to moderate correlation.

In the Philippines, the day care does not only act as platform for health and psychosocial services but also serve as a learning platform (UNESCO, 2007). This reality, perhaps, makes instructional and disciplinary efficacy a quintessential dimension of DCWs' general self-efficacy. The DCCs mends the gap that families' inability to afford pre-school education creates, which motivates the CDW to focus on teaching, among other tasks. The high degree of association between instructional and disciplinary efficacy with the rest of self-efficacy subscales might insinuate that CDWs' efficacy in other dimensions strongly goes along with their efficacy in facilitating learning and managing children's behaviors. This insight fits well with the findings of Cadosales (2011), which underscores CDW's expressed need for activities that will train them become better in teaching, specifically in "teaching strategies, production of instructional materials, and pedagogy" (p.247).

Finally, efficacy in encouraging parental involvement, encouraging community involvement, and fostering positive climate all had moderate to high positive relationship with other subscales, with coefficients ranging from 0.318 to 0.789. As constantly manifested in aforementioned discussions, the DCWs self-efficacy links with their ability to mobilize parents, families, and the community to take part in promoting care and development of the very young.

Summary, Conclusion, and Recommendations

In conclusion, this descriptive study established that, in this particular group of selected CDWs:

1. The majority reported satisfaction with the children they cater to, their work, and their life in general.
2. There was no distinct consensus regarding their perceptions on barangay support, parental involvement, and satisfaction with the physical structure of the day care.
3. The majority of highly efficacious and highly resilient CDWs also perceived having support, cooperation, and satisfaction.
4. Self-efficacy and resilience are moderately and positively correlated.

The sparse literature about CDWs in the Philippines made it challenging for this study to situate the analysis of its findings against the backdrop of real experiences from Filipino DCWs. Insights from allied areas such as early childhood education, taking heed from what is known regarding self-efficacy and resilience of preschool teachers and other childcare providers (e.g., nurses), however, made it somewhat possible to clarify the nature of association among the study variables and its implication on the circumstances of CDWs. Insights from the limited local literature on day care programs were also deemed meaningful. Hence, this study highly recommends that considerable research attention be given to child development programs and its stakeholders in the Philippine setting. Both qualitative and quantitative empirical explorations would be meaningful in bridging the knowledge gap. Validating the outcomes of this study by having a larger and randomly selected sample, alongside conducting in-depth qualitative investigations, might also provide a more comprehensive and holistic overview on CDWs' efficacy and resilience and on CDWs' lived experiences, in general.

Taking into consideration the outcomes of this study, several opportunities emerge in both research and extension activities with and for CDWs. Exploring signature strengths of CDWs might be meaningful. While there was a mention of a few personal traits as resource, there remains to be more focus on external resources, i.e., physical/material, financial, people, which, although are equally important, might come in arbitrary forms and amount. There is a need to solidify internal resource capabilities such as values, character and ego strength so as to dispose the CDWs for the grueling duties demanded from them.

Capacity building, particularly in resource generation and inter-agency collaboration, may help CDWs exhaust all potential fiscal support within the community. Integrating exercises to explore inner strengths might also be a direction in extending support among CDWs. At the forefront of the government's thrust to strengthen ECCD at the local level is the CDW patiently steering the program's rudders on a daily basis. Providing the CDWs with opportunities to enhance their efficacy and resilience by providing them with more opportunity to take part in decision making in the day care, encouraging active parental and community involvement and designing and implementing capacity building programs that would enhance their skills in pedagogy and child care, might just promote their confidence in their field as professionals, and might just inspire them to continuously become better as caregivers to the Filipino child.

References

- Abulon, E. L. R. (2013). Barangay day care centers: Emergence, current status and implications to teacher education. *Proceeding of the Global Summit on Education*, (pp. 313–327). Kuala Lumpur, Malaysia, 1-12 March 2013.
https://worldconferences.net/proceedings/gse2013/papers_gse2013/094%20Edna%20Luz%20R.%20Abulon.pdf
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychology Review*, 84(2), 191–215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1997). *Self-efficacy. The exercise of control*. New York: W. H. Freeman and Company.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. In T. C. Urdan and F. Pajares (Eds.), *Self-efficacy beliefs of adolescents*, pp. 307–337. Greenwich, Connecticut: Information Age Publishing.
- Bouillet, D., Ivanec, T. P., & Miljević-Ridički, R. (2014) Preschool teachers' resilience and their readiness for building children's resilience. *Health Education*, 114(6), 435–450.
<https://doi.org/10.1108/HE-11-2013-0062>
- Boyle, G. J., Saklofske, D. H., & Matthews, G. (2014). *Measures of personality and social psychological constructs*. New York: Academic Press.
- Boyd, M. (2013). “I love my work but...” The professionalization of early childhood education. *The Qualitative Report*. 18(71), 1–20. Retrieved from
<https://nsuworks.nova.edu/tqr/vol18/iss36/1>
- Cadosales, M. N. Q. (2011). Enhancement activities for the Day Care Centers and Development Workers. *JPAIR Multidisciplinary Journal*, 6, 247–260. Retrieved from
<http://ejournals.ph/form/cite.php?id=7482>
- Carver, C.S. (1998). Resilience and thriving: Issues, models and linkages. *Journal of Social Issues*, 54, (2), 245–266. <https://doi.org/10.1111/0022-4537.641998064>
- Chen, S. & Scannapieco, M. (2010). The influence of job satisfaction on child welfare worker's desire to stay: An examination of the interaction effect of self-efficacy and supportive supervision. *Child and Youth Services Review*, 32(4), 482–486.
<https://doi.org/10.1016/j.childyouth.2009.10.014>
- Chung, L., Marvin, C. A., & Churchill, S. L. (2005). Teacher factors associated with preschool teacher–child relationships: Teaching efficacy and parent–teacher relationships. *Journal of Early Childhood Teacher Education*, 25, 131–142.
<https://doi.org/10.1080/1090102050250206>
- Gavora, P. (2010). Slovak pre-service teacher self-efficacy: theoretical and research considerations. *The New Educational Review*, 21(2), 17–30.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569–582. <https://doi.org/10.1037/0022-0663.76.4.569>
- Guo, Y., Piasta, S. B., Justice, L. M., & Kaderavek, J. N. (2010). Relations among preschool teachers' self-efficacy, classroom quality, and children's language and literacy gains. *Teaching and Teacher Education*, 26 (4), 1094–1103.
<https://doi.org/10.1016/j.tate.2009.11.005>
- Guo, Y., Justice, L. M., Sawyer, B., & Tompkins, V. (2011). Exploring factors related to preschool teachers' self-efficacy. *Teaching and Teacher Education*, 27(5), 961–968.
<https://doi.org/10.1016/j.tate.2011.03.008>

- Hegney, D. G., Rees, C. S., Elay, R., Osseiran-Moisson, R., & Francis, K. (2015). The contribution of individual psychological resilience in determining the professional quality of life of Australian nurses. *Frontiers in Psychology*, 6, 1613. <https://doi.org/10.3389/fpsyg.2015.01613>
- Henson, R. K., Kogan, L. R., & Vacha-Haase, T. (2001). A reliability generalization study of the teacher efficacy scale and related instruments. *Educational and Psychological Measurement*, 61(3), 404–420. https://doi.org/10.1177/00131640121971284_Herrell
- Herrell, P. O. (2011). Parental involvement: Parent perceptions and teacher perceptions (Unpublished Doctoral Dissertation). East Tennessee State University, Tennessee.
- Higgins, S., Hall, E., Wall, K., Woolner, P., & McCaughey, C. (2005). *The impact of school environments: A literature review*, London: The Centre for Learning and Teaching, School of Education, Communication and Language Science, University of Newcastle. https://www.researchgate.net/publication/232607630_The_Impact_of_School_Environments_A_Literature_Review
- Hraha, S. D. (2012). Utilizing the cultivating awareness and resilience in education program to enhance social and emotional competence in preschool and elementary school teachers: A pilot study. (Doctoral Dissertation). Adler School of Psychology, Vancouver. <https://eric.ed.gov/?id=ED550305>
- Hughes, W., & Pickeral, T. (2013). *School climate and shared leadership: School climate practice brief*. National School Climate Center. New York, NY: National School Climate Center. <https://www.schoolclimate.org/themes/schoolclimate/assets/pdf/practice/sc-brief-leadership.pdf>
- Hsing-Ming, L., Mi-Tao, C. (2008). Potential association among occupational hope beliefs, occupational resilience and organizational virtuous behaviors for the preschool teachers. *Contemporary Educational Research Quarterly*, 16(4), 155–198. <https://doi.org/10.6151/CERQ.2008.1604.05>
- Kihoro, M.F. & Bunyi, G.W. (2017) Levels of teacher self-efficacy among preschool teachers in Nairobi and Kiambu counties, Kenya. *European Journal of Education Studies*, 3(2), 363–371. <https://doi.org/10.5281/zenodo.290622>
- Kusma, B., Groneberg, D. A., Nienhaus, A., & Mache, S. (2012). Determinant of day care teachers' job satisfaction. *Central Europe Journal of Public Health*, 20(3), 191–198. <https://doi.org/10.21101/cejph.a3700>
- Levy, M., & Poertner, J. (2014). Development of a Child Welfare Worker Stress Inventory. *Journal of Psychological Issues in Organizational Culture*, 5(1), 7–15. <https://doi.org/10.1002/jpoc.21134>
- Matos, P.S., Neushotz, L.A., Griffin, M. T., & Fitzpatrick, J. J. (2010). An exploratory study of resilience and job satisfaction among psychiatric nurses working in inpatient units. *International Journal of Mental Health Nursing*, 19 (5), 307–312. <https://doi.org/10.1111/j.1447-0349.2010.00690.x>
- Mojdegan, S., Moghidi, F., & Ahghar, Q. (2013). Study of the relationship between happiness and self-efficacy with self-resilience of preschool teachers in Tehran. *Applied Science Reports*, 2(1), 10–16. <http://pscipub.com/Journals/Data/JList/Applied%20Science%20Reports/2013/Volume%202/Issue%201/2.pdf>

- Muñez, D., Bautista, A., Khiu, E., Keh, J. & Bull, R. (2017) Preschool teachers' engagement in professional development: Frequency, perceived usefulness, and relationship with self-efficacy beliefs. *Psychology, Society, & Education*, 2017. 9(2), 181–199. <https://doi.org/10.25115/psye.v9i2.655>
- Munthali, A. C., Mvula, P. M., & Silo, L. (2014). Early childhood development: the role of community based childcare centres in Malawi. *SpringerPlus*, 3, 305. <https://doi.org/10.1186/2193-1801-3-305>
- Nilsson, M., Ejlertsson, G., Andersson, I., & Blomqvist, K. (2015). Caring as a salutogenic aspect in teachers' lives. *Teaching and Teacher Education*, 46, 51–61. <https://doi.org/10.1016/j.tate.2014.10.009>
- Özbey, S., Büyüktanir, A., & Türkoglu, D. (2014). An investigation of preservice pre-school teachers' resilience skills. *Procedia - Social and Behavioral Sciences*, 116, 4040–4046. <https://doi.org/10.1016/j.sbspro.2014.01.887>
- Ozer, E. M. (1995). The impact of childcare responsibility and self-efficacy on the psychological health of professional working mothers. *Psychology of Women Quarterly*, 19 (3), 315–335. <https://doi.org/10.1111/j.1471-6402.1995.tb00078.x>
- Pelletier, J., & Brent, J. M. (2002). Parent participation in children' school readiness: The effects of parental self-efficacy, cultural diversity and teacher strategies. *International Journal of Early Childhood*, 34 (1), 45–60. <https://doi.org/10.1007/BF03177322>
- Philippine Congress (2012). Early years act (EYA) of 2013 (Republic Act No. 10410), Philippines. <https://www.officialgazette.gov.ph/2013/03/26/republic-act-no-10410/>
- Philippine Congress (1990). Barangay - level total development and protection of children act (Republic Act No. 6972,). Philippines. Retrieved from <http://www.lawphil.net>
- Puteh M., Che Ahmad C. N., Mohamed Noh N., Adnan M., & Ibrahim M. H (2015). The classroom physical environment and its relation to teaching and learning comfort level. *International Journal of Social Science and Humanity*, 5(3), 237–240. <https://doi.org/10.7763/IJSSH.2015.V5.460>
- Reyes, Jr., V. C. (1996). An implementation analysis of the Day Care Law in the National Capital Region. *Philippine Journal of Public Administration*, 40(1-2), 67–107.
- Skaalvik, E.M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26, 1059–1069. <https://doi.org/10.1016/j.tate.2009.11.001>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
- Stipek, D. (2012). Context matters: Effects of student characteristics and perceived administrative and parental support on teacher self-efficacy. *The Elementary School Journal*, 112 (4): 590–606. <https://doi.org/10.1086/664489>
- Sumsion, J. (2004). Early childhood teachers' constructions of their resilience and thriving: a continuing investigation. *International Journal of Early Years Education*, 12(3), 275–290. <https://doi.org/10.1080/0966976042000268735>
- United Nations Educational, Scientific and Cultural Organization (2007). Philippines: Early childhood care and education programmes. *Education for all monitoring report 2007*. Geneva. Retrieved from <http://unesdoc.unesco.org/images/0014/001472/147225e.pdf>

Yousofi, M., Rezaei, M. H., & Yonesi, E. M. (2014). The relationship between job motivation and self-efficacy belief with job satisfaction in teachers of preschool centers of Eghlid County. *Journal of Applied Science and Agriculture*, 9(18), 10–14. Retrieved from www.aensiweb.com/old/jasa/rjfh/December%202014/10-14.pdf.

World Health Organization (2004). The physical school environment: an essential element of a health-promoting school. *World Health Information Series on School Health*. Geneva: World Health Organization. <http://apps.who.int/iris/handle/10665/42683>

Corresponding author: Katherine Del Rosario

Contact email: kedelrosario@up.edu.ph