Botswana Early Childhood Educators' Perceptions on Factors associated with the Inclusion of Children with Disabilities

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Abstract. The study examines the perception of Early Childhood Educators' (ECEds) on factors associated with the inclusion of children with disabilities in Early Childhood Education (ECE) settings in Botswana. ECEds (128) completed a Support Scale for Preschool Inclusion (SSPI) to air their views regarding the necessary/available factors for the inclusion of Children With Disabilities (CWD) in ECE settings. Findings of the study revealed that factors like principal support, family involvement, appropriate materials, peer acceptance of CWD, knowledge and skills about curriculum adaptation/ implementation, promoting positive interaction among children, positive attitudes of school personnel for inclusion, and a few others were considered necessary by ECDs; believed that most of them were not available in ECE settings; and in-service training, extra time for collaboration and reduced class size were least available. The findings suggested professional development of ECEds along with additional in service training necessary for successful inclusion of young CWD in ECE settings of Botswana.

Keywords: Inclusion, Early Childhood Education, Children with disabilities, Inclusive Education, Botswana

Introduction

In the last two or three decades, inclusion of Children With Disabilities (CWD) has become a universal social approach that encourages all to build societies that grow and rejoice in everyone's successes (Booth, Ainscow & Kingston, 2006). This rationale is based on the disability rights movement (Bailey, McWilliam, Buysse & Wesley, 1998) which started in mid-20th century and supported the ethical and philosophical rights of various people with different abilities to participate in the variety of day-to-day tasks. This movement included all children with right to participate in educational settings, children without disabilities, which mainstreaming/integration. The terms integration and mainstreaming are identical, indicating to the placement of a CWD into an ordinary school environment (Yuen & Westwood, 2001). The CWD are given some additional support to participate in the classroom activities, but the purpose is to create the situation where children with disabilities have to adjust according to the program (Chhabra, Srivastava & Srivastav, 2010).

In the beginning of 1990, the notion of inclusion gained popularity and referred to the rights of CWD who could take part in mainstream educational settings with other children (Guralnick, 2001; Odom & Diamond, 1998). The Salamanca Framework for Action (UNESCO, 1994) adopted at the United Nations Conference on special education emphasizes the urgency of the new emerging trend of inclusive schooling which has brought challenges for education system to adapt itself to the needs of children rather than expecting them to make compromises. Inclusion is about fitting programs to accommodate the individual needs of all children. It suggests that curriculum, instructional practice and resources must be accustomed fairly so that all children, regardless of capability, can successfully be involved in the regular learning programs (Mittler, 1995).

The expanding paradigm of inclusion refers to the community, where the entire population of children can have the right to take part in a mainstream educational setting, and be respected as a part of that program as well (Carrington, 2007). The overall goal of inclusion is to prepare CWD for life outside of the school setting (NAEYC/DEC, 1993). Likewise, for preschool age children, inclusive practices should assist the prolific involvement in the community (Odom, 2000). CWD have the right to be a part of mainstream education from the early childhood level and it is the responsibility of the regular schools and Early Childhood Educators (ECEds) to provide this education. Current research supports inclusion of children with various disabilities in the mainstream settings (Odom, Buysee, & Soukakou, 2011). Young CWD exhibited better social skills and academic success when they are participating in inclusive early childhood setting (Koegal, Fredeen, Lang & Koegal, 2011). On the other hand, children without disabilities in ECE settings become more responsive to the needs of others, show more acceptances of differences, may develop friendship with and feel less discomfort around people with disabilities (Peck, Carlson, & Helmstetter, 1992; Odom, Zercher, Li, Marquart, & Sandal, 2006). In addition, it appears that the involvement of

children without disabilities in inclusive settings may positively affect their knowledge and attitudes about disabilities (Diamond & Huang, 2005).

Inclusion of CWD in Botswana

According to Abosi (2000), in Botswana, the education of CWD began about 40 years ago and was started by Non-Governmental Organisations (NGO). In this country, the inclusion of CWD in mainstream education was believed to include all children irrespective of their capability; to provide them with the same right to be educated; and to be a part of the mainstream educational setting. This commitment of enhancing access and equal right for education has been highlighted in the current policy on inclusive education (Mukhopadhyay, 2014). In position with the global trend of inclusion, an all-encompassing policy document on inclusion of CWD in the education settings has been developed in 2011. The Inclusive Education policy has five goals will be achieved through ten statements of commitment. These goals emphasised the childrens' completion of basic education, teachers' possession of necessary skills, and provision of resources, informal educational settings, and supportive and harmonious environment in various categories of schools (Republic of Botswana, 2011; Mukhopadhyay, 2013). In Inclusive Education policy, one of the commitment statements specifically caters to children with disabilities (Republic of Botswana, 2011).

Children with special needs will be encouraged and supported to attend school and benefit from their attendance. (p. 12)

This commitment encourages the school staff to maintain a good inclusive environment for all children and to liaise with children's parents regularly (Republic of Botswana, 2011). It is anticipated that after the implementation of this policy, the number of children with different abilities in a classroom will continually increase and therefore, it is imperative to make sure that all educators are prepared with necessary information and services to cater for the developmental and educational requirements of CWD.

Teachers' Views on Factors Associated with Inclusion in Early Childhood Education (ECE) Settings

Previous research studies conducted in other countries have examined factors of inclusion (e.g. teachers' knowledge, administrative support, resources, and materials) for the successful inclusion of CWD in Early Childhood Education (ECE) setting. Many researchers have indicated that teachers lack awareness, training, expertise, readiness, capabilities and self-assurance that are required to provide beneficial and suitable instruction to meet the needs of all children in the ECE settings (McLeskey & Waldron, 2002; Paterson, 2007; Sadler, 2005).

In Bruns' and Mogharreben's (2008) study, teachers in Head Start settings reported that they possessed general skills to encourage the learning of

all children but were less confident about their skills to carry out specialised practices associated with special education like implementing Individual Educational Plan (IEP) goals and objectives or supporting children to use alternative forms of communication. Moreover, teacher training is constantly reported by many researchers as one of the most important factors in meeting the individual requirements of all children in an inclusive programme (Mulvihill, Shear, & Vanhorn 2002). Furthermore, many researchers have discovered other factors that were observed by educator as necessary factors for the effective inclusion of young children with disabilities in ECE settings. Results suggested that in-service training, availability of resources (Avramidis, Bayliss, & Burden, 2000), adequate staffing (Kucuker, Acarlar, & Kapci, 2006; McConkey & Bhlirgri, 2003), administrative or principal support (Kucker Acarlar, & Kapci, 2006; Proctor & Nieymar, 2001) and support from professionals (Hammond & Ingalls, 2003) are vital in the implementation of effective inclusion of children with disabilities in the inclusive classroom.

Hughes and Valle-Riestra (2007) in their study reported about the desirable (necessary) and feasible (available) factors as perceived by the kindergarten teachers. They reported that many kindergarten educators were not prepared with the expertise and professional skills for the inclusion of CWD in educational settings in inclusive classrooms. They expressed that the necessity for implementing the instructional practice was much more than the available factors for inclusion in the classroom.

Teachers' Views on Inclusion of CWD in ECE Settings of Botswana

In Botswana, research on inclusion of CWD in preschool is scarce. Previous researches in Botswana indicate that educators do not have positive attitudes towards inclusion and are concerned about inadequate equipment, large class size, inadequate training, and lack of resources in the implementation of successful inclusion in school. They also pointed out that educators play a very important role in the inclusion of CWD. However, most of these researches focussed on primary & secondary teachers' perceptions and did not include the views of early childhood educators' for the inclusion of young CWD in early childhood schools (Brandon 2006; Mangope, Kuyini, & Major, 2012; Mukhopadhyay, 2013).

The aim of this research is to find the opinions of Early Childhood Educators (ECEds) regarding the factors that are necessary and available for the implementation of inclusion in the ECE settings of Botswana in order to draw meaningful implications for future practices in ECE settings that are likely to promote successful inclusion of preschool CWD at the field level. The information provided by these ECEds can enlighten the professionals about the factors that are necessary and available for the inclusion of CWD. The findings may assist in determining the types of professional opportunities ECEds may be provided with to benefit from, and to improve the learning experiences of CWD in ECE settings. The authors used the following two research objectives to guide the focus of the study:

- 1) To examine the early childhood educators' perception of the necessary factors for the successful inclusion of CWD
- 2) To investigate the early childhood educators' perception of the factors that are available for the successful inclusion of CWD.

Method

Research Design

In this study, the positivist research paradigm was utilised. The research design employed for this study was quantitative, using survey methodology to systematically collect data from a sample of Early Childhood Educators (ECEds). The survey methodology allows the researcher to use questionnaire as the main method of attaining information from a particular sample so that inferences can be made about characteristics or perceptions of the actual population (Dillman, 2000). The questionnaires are efficient to distribute when sampling multiple sites in multiple states. This study was conducted in the Republic of Botswana at two selected settings, namely, Gaborone and Francistown area, the largest cities of Botswana, located in the southern and Northern part of the country. The Gaborone region was selected as this is the capital of Botswana and is located at southeast district whereas Francistown is the second largest city and is often described as the "Capital of North". The other reason for selecting these two regions is that they have highest concentration of varied types of ECE settings (Gaborone and Francistown Day Care Directory, 2011)

Participants

The purposive sampling was utilized to select the ECEds from the inclusive ECE settings in the two regions (Gaborone and Francistown). There were 133 ECE settings in that region and from that population, 34 inclusive ECE settings existed and were all selected (27 Gaborone and 7 Francistown). One hundred twenty eight (128) early childhood educators participated in the survey.

Instrument

A questionnaire was used to gather data from participants. The first section of the questionnaire was aimed to gather general, educational and professional experience of the participants. This section had included the gender, age, role in the class, educational qualifications, teaching experience, training focusing on CWD, family member with a disability, close friend with a disability, child with a disability in class and total number of children in the class. The second section of the questionnaire, Support Scale for Pre-school Inclusion (SSPI) developed by Küçüker, Sevgi; Acarlar, Funda; Kapci, Emine (2006), contained 34 items and is designed to assess the educators' views of factors which are essential and accessible for inclusion of CWD. The educators were supposed to provide their views in each item for two dimensions, i.e, necessary and available, by rating on a four-point Likert-Scale, from 1-4, where 1 stands for **Not at all** and 4 stands for **To a great extent**. The participants required

to indicate the necessity for successful inclusion followed by availably of items. The reliability of Cronbach Coefficient Alpha for necessary and available dimension was very high (.96 and .97 respectively).

Data Analysis

The response of the participants from the questionnaire was first coded and then analysed quantitatively by using SPSS (Statistical Package for Social Sciences). Descriptive analysis and inferential statistical techniques were used to analyse the response from the questionnaires. The analysis included Mean Score, Total Mean Score T-Test and One-Way (ANOVA) test of both the dimensions.

Results

One hundred twenty eight (128) early childhood educators' (ECEds) completed questionnaires for the study. The majority (93.8%) of the early childhood educators' was female and 6.2% was male. Teachers' age ranged from 19 years to 50 years. There were 33 teachers (25.8%) in the 19-29 years. The 30-39 years and 40-49 years age groups together consisted of 82 teachers, representing 64.1% of the teachers who responded. The smallest group was the 41-50 years age group that consisted of thirteen teachers, representing 10.1% of teachers who responded. The majority, 88 participants (68.75%) held teacher position whereas 40 respondents (31.25%) were teacher assistant. Approximately 30.5% of the ECEds had certificate in ECE whereas 35.9% reported having Diploma in Primary Education followed by 17.23% having Bachelor degree. The educators had teaching experience ranging from 2 months to 30 years suggesting that almost half of the respondents (47.7%) had upto 5 years of teaching experience followed by 33 respondents who had teaching experience of 6-10 years representing 25.78% of the sample. The majority, 106 respondents (82.8%) had no training while only 22 respondents (17.2%) had some prior training focussing on the education of children with disabilities. The majority, 67.2% respondents had no family member with a disability followed by 32.8% of respondents who had family member with a disability. Almost half of the respondents, 47.7% had either one or two CWD along with other children in the classroom. Approximately half of the respondents (47.7%) indicated total numbers of children including CWD were 21-25, and one fourth of participants (25.0%) reported that they had 26-32 total numbers of children in their classroom (Table 1).

Table 1Demographic Information of Early Childhood Educators (ECEds)

Demographic Characteristics	Frequency	Percentage
Gender	Male	8(6.3)
	Female	120(93.8)
Age	19-29	33(25.8)
Ţ	30-39	42(32.8)
	40-49	40(31.3)
	Above 50	13(10.2)
Role	Teacher	88(68.8)
	Teacher Assistant	46(31.3)
Educational Qualifications	Bachelor	22(17.2)
	Diploma	46(35.9)
	Certificate	39(30.5)
	BGCSE	12(9.4)
	CJSS	9(7.0)
Number of years of Teaching	0-5	61(47.7)
Experience	6-10	33(25.8)
•	11-15	15(11.7)
	16-20	14(10.9)
	Above 21	5(3.9)
Training focussing on the education o		22(17.2)
CWD	No	106(82.8)
Family member with a disability	Yes	42(32.8)
	No	86(67.2)
Close friend with a disability	Yes	35(29.3)
•	No	85(70.8)
Child with a disability in a class	Yes	61(47.7)
	No	67(52.3)
Number of children in a class	6-10	1(8.0)
	11.15	3(2.3)
	16-20	31(24.2)
	21-25	61(47.7)
	26-30	32(25.0)

Figures in parenthesis indicate percentages

The findings from the analysis of the survey data provide evidence of the early childhood educators' perceptions of the necessary and available inclusion factors. Scores generated from the necessary factors and available factors were used as the dependent variables whereas age, role, educational qualifications, teaching experience, family member with a disability, close friend with a

disability and child with a disability were used as independent variables. Mean, Standard deviation, t-test and one way of analysis of variance (ANOVA) was utilised to find out the difference between variables. Post hoc was also done to see the difference in the categories of the significant variables.

Early Childhood Educators Perceived Necessary Factors

In order to measure the necessary factors for the inclusion of CWD, the Participants (ECEds) rated how necessary the 34 inclusion items/factors were for the involvement of CWD in their early childhood classrooms. The results of the study revealed that all items/factors in necessary dimension had total mean score of above 3, suggesting that ECEds perceived all items to be somewhat necessary for the inclusion of CWD in ECE settings.

The participants view the principal's support (3.78), family support (3.68), appropriate material (3.68), appropriate materials for CWD (3.68), and peer social acceptance of CWD (3.64%) as the most necessary factors for the inclusion of children with disabilities in their classrooms. They all believe that principal, family support and peer social acceptance is necessary for the inclusion in school. The least necessary factors were opportunities to attend meetings (3.39), written information on needed areas of inclusion (3.39), followed by technological equipment to support education of CWD (3.40). Table 2 displays the most and least necessary factors as perceived by ECEds.

Table 2 *Most and Least Necessary Factors for Early Childhood Educators*

Most Necessary factors	Mean(SD)	Least Necessary Factors	Mean(SD)
Support From School Principals' for Children with Disabilities (CWD)	3.78(0.55)	Opportunities to attend meetings, conferences etc.	3.39(0.95)
Family Involvement of CWD	3.68(0.70)	Written Information on needed areas	3.39(0.88)
Appropriate materials for CWD	3.68(0.70)	Technological equipment to support education of CWD	3.40(0.87)
Peer Social Acceptance of CWD	3.64(0.72)	Volunteers in Classroom	3.41(0.85)
Knowledge and Skill about Curriculum adaptation & Implementation	3.63(0.69)	Extra time for Collaboration with professionals/families/personnel	3.42(0.87)
Knowledge and Skill about promoting positive interaction among all children	3.60(0.72)	Regular meetings with families & specialist about CWD	3.43(0.94)
Positive attitude of school personnel towards inclusion	3.59(0.66)	Appreciation of other in workplace	3.43(0.85)

One way analysis of variance (ANOVA) and t-test was used to examine the significance of the perception of early childhood educators on the 'needs' or 'necessary' dimension for the inclusion of children with disabilities in ECE settings. One Way ANOVA and t test showed that there are statistically significant differences in the necessary dimension for the participants (ECEds) characterised by their role in the class, educational qualifications, teaching experience, training focusing on CWD, having a close friend with a disability and

having a child with a disability in the classroom. The non-significant factors were respondent's gender, age and total number of children in the class (Table 3).

Table 3Means, Standard Deviation, t/F-test of Necessary Factors across Early Childhood Educators Demographic variables

Demographic variables Variable	S	N	Mean	SD	t/F	Sig (p)
Gender					,	- 0 17
	Male	8(6.3)	3.65	.409	t=.630	.530
	Female	120(93.7)	3.53	.533		
Age		()				
0-	19-29	33(25.8)	3.47	.588	F= 1.276	.286
	30-39	42(32.8)	3.46	.570		
	40-49	40(31.3)	3.59	.465		
	Above 50	13(10.2)	3.74	.321		
Role		- ()				
	Teacher	88(68.8)	3.63	.434	t = 9.874	002**
	Teacher Assista	46(31.3)	3.32	.644		
Educational		- ()				
Qualifications	Bachelor	22(17.2)	3.66	.483	F = 3.161	.016*
~	Diploma	46(35.9)	3.64	.409		
	Certificate	39(30.5)	3.49	.563		
	BGCSE	12(9.4)	3.37	.656		
	CJSS	9(7.0)	3.06	.577		
Taashina Ermanianaa	,	()				
Teaching Experience	0.5	(1/47.7)	2.27	<i>c</i> 0	F -2 40F	011*
on this job	0-5 years	61(47.7)	3.37	.60	F = 3.405	011*
	6-10 years	33(25.8)	3.59 3.79	.491 .271		
	11-15 years	15(11.7)	3.79 3.75	.271 .241		
	16-20 years Above 21	14(10.9)	3.73 3.71	.410		
	Above 21	5(3.9)	3.71	.410		
Training focussing on						
the education of CWD	Yes	22(17.2)	3.82	.286	t = 2.91	.004*
	No	106(82.8)	3.47	.547		
Family member with						
a disability	Yes	42(32.8)	3.56	.530	t = .421	.074
	No	86(67.2)	3.52	.528		
Close friend with a						
disability	Yes	35(27.3)	3.68	.408	t = 1.97	.051
	No	93(72.7)	3.48	.556		
Child with a						
disability in a class	Yes	61(47.7)	3.67	.422	t = 2.82	.005**
	No	67(52.3)	3.41	.582		
Number of children						
in a class	6-10	1(8.0)	3.71		F = .491	.742
	11.15	3(2.3)	3.69	.136		
	16-20	31(24.2)	3.58	.494		
	21-25	61(47.7)	3.50	.481		
	26-30	32(25.0)	3.50	.655		

^{*} *p*<.05 ***p*<.01

Figures in parenthesis indicate percentages

The data presented in Table 3 shows a significant variance of educators' views that held a position of teacher and teacher assistant (p< 0.05) on total mean

scores of all of the items in the necessary dimensions. The participants who held a position of teacher had slightly higher mean score (n = 88, M = 3.63) than participants with a role of teacher assistant (n = 40, M = 3.32). Similarly there was a significant influence of education of participants on total mean scores of all of the items in the necessary dimension $[F_{(1,126)} = 3.161, p < .01]$. The post hoc test (Table 4) showed that the participants with a junior school certificate had a significantly lower mean score (n=9, M=3.06) than participants with a bachelors' degree (Mean difference =.601, p = .028) and those with diploma (Mean difference = .577, p = .019). Likewise, the teaching experience of participants [$F_{(5)}$ $_{122)}$ = 3.405, p < .05] also had an effect on the total mean scores of items in the necessary dimensions. Post hoc comparison indicates that participants with 0-5 years of teaching experience differ significantly at p < .05 with participants of 11 -15 years of teaching experience (Mean difference = -.419, p = .038). However, it should be added that all five groups of educators with different years of teaching experience observed the factors as quite necessary for inclusion of CWD (Table 4).

Table 4Post hoc comparison of Necessary score on the basis of highest degree, teaching experience in teaching CWD

Variable			Mean difference	Sig (p)
Highest Degre	ee			
	CJSS	Bachelor	60086	.028.
		Diploma	57744 -	.019*
		Certificate	.42658	.169.
		BGCSE	30972	.642
Number of Ye	aı			
of Teaching	0 – 5	6 - 10	21805	278
Experience		11- 15 years	41963	038*
		16 -20	37872	.093
		Above 21 years	33430	.618

^{*}Indicates a significance at the p<.05

There was significant difference in the necessary dimensions for the participants who had Training focussing on the education of CWD [$t_{(126)}$ = 2.91, p < 0.5] and child with a disability in the class [$t_{(126)}$ = 2.82, p < .05). However there was no significant difference in the total mean scores of the participants' age [$F_{(3,124)}$ = 1.276, p = 0.286), gender [$F_{(1,126)}$ = 0.396, p = 0.530), family member with a disability [$F_{(1,126)}$ = 0.421, p = 0.674) and close friend with a disability [$F_{(1,126)}$ = 1.97, p = .051). The results are depicted in Table 3. This means that participants with role as a teacher and with a qualification of diploma and training focussed on education of CWD perceived the factors more necessary as compared to the participants who are teacher assistant who had only school level of education and no training on the education of CWD. This result shows that for the implementation of inclusion of CWD in ECE settings in Botswana, educators have to be qualified, knowledgeable, experienced and trained to deal specifically with the CWD in the ECE settings. Overall, the ECEds perceived

that all of the inclusion factors were highly necessary for effective inclusion of CWD in ECE settings.

Early Childhood Educators Perceived Available factors

The data presented in Table 5 shows participants' views about the available factors needed for inclusion of CWD on the SSPI. The early childhood educators rated how available/accessible each of the 34 inclusion factors. It can be observed from the Table 5 that most available items' (34 items) mean scores are below 3 indicating that educators perceived availability level of support was less for the inclusion of CWD in ECE settings.

The most available support from the educators' point of view are as principals' support (3.14) followed by the positive attitudes of school personnel towards inclusion and peer social acceptance of CWD (2.98), whereas the reduced class size (2.19), extra time for collaboration with professionals (2.26) and the written information on the needed area of inclusion (2.26) were the least available support factors for inclusion of CWD in the ECE settings (Table 5). The results of the study shows that the total mean score of all the items was 2.65 for the available support dimensions, which ranges between very little available and somewhat available of the inclusion factor.

Table 5 *Most and Least Available Factors for Early Childhood Educators*

Most Available factors	Mean(SD)	Least available Factors	Mean(SD)
Support From School Principals'	3.14(0.82)	Reduced class size	2.19(1.22)
for Children with Disabilities (CWD)			
Positive attitude of school personnel	2.98(0.88)	Extra time for Collaboration with	2.26(0.99)
towards inclusion		professionals/families/personnel	
Peer Social Acceptance of CWD	2.98(0.96)	Written information on needed area	a 2.26(1.10)
Family Involvement of CWD	2.90(0.97)	In-service training in needed areas inclusion	2.30(1.17)
Positive attitudes of families of Childre without disabilities	2.85(0.90)	Volunteers in Classroom	2.34(1.13)
Knowledge and Skill about	2.85(0.92)	Training for school Personnel	2.36(1.14)
communicating with families		fostering positive attitudes	
Knowledge and skills about	2.84(0.93)	Opportunities to attend meeting	§ 2.41(1.12)
Promoting positive interaction among		conference etc.	
all children			

One way ANOVA and T-tests (Table 6) displayed no statistically significant variances in the available dimension for most of the participant characteristics including gender, age, teacher role, level of education, teaching practice, training focusing on education of CWD, family member with a disability, close friend with a disability, child with a disability in the class and number of children in class. It shows that the views of all early childhood educators were more or less same when it comes to availability of factors for the inclusion. Overall, the ECEds perceived that most of the inclusion factors were

somewhat available or available very little with mean score over 2.19 for each survey item.

Table 6Means, Standard Deviation, t or F-test of Available Factors across Early Childhood Educators Demographic variables

Variables		N	Mean	SD	t/F	Sig (p)
Gender						
	Male	8(6.3)	2.54	.714	t =275	.784
	Female	120(93.7)	2.61	.724		
Age						
	19-29	33(25.8)	2.64	850	F = .785	.505
	30-39	42(32.8)	2.61	.709		
	40-49	40(31.3)	2.50	.710		
	Above 50	13(10.2)	2.85	.430		
Role						
	Teacher	88(68.8)	2.62	.678	t = .261	794
	Teacher Assista	46(31.3)	2.59	.825		
Educational						
Qualifications	Bachelor	22(17.2)	2.43	.663	F = .920	.655
	Diploma	46(35.9)	2.58	.681		
	Certificate	39(30.5)	2.68	.772		
	BGCSE	12(9.4)	2.54	.817		
	CJSS	9(7.0)	2.93	.707		
Teaching Experience						
on this job	0-5 years	61(47.7)	2.66	.774	F = 1.67	146
on the jet	6-10 years	33(25.8)	2.75	.670	1 1.07	110
	11-15 years	15(11.7)	2.46	.705		
	16-20 years	14(10.9)	2.45	.530		
	Above 21	5(3.9)	1.86	.460		
	1120.021	0(813)	1.00	.100		
Training focussing on		22(47.2)	2 04	(10		446
the education of CWD	Yes	22(17.2)	2.81	.618	t = 1.46	.146
F 1 1 1.1	No	106(82.8)	2.57	.736		
Family member with		10(00.0)	0.50	5 44		450
a disability	Yes	42(32.8)	2.73	.741	t = 1.38	.170
G1	No	86(67.2)	2.55	.707		
Close friend with a		a= (a= a)	- 10			4=0
disability	Yes	35(27.3)	2.68	.729	t = .751	.478
	No	93(72.7)	2.58	.720		
Child with a		(4/45-5)	9.55	5 0.		0.70
disability in a class	Yes	61(47.7)	2.61	.734	t = .027	.979
	No	67(52.3)	2.61	.715		
Number of children						
in a class	6-10	1(8.0)	3.71		F = .790	.534
	11.15	3(2.3)	2.63	1.02		
	16-20	31(24.2)	2.55	.810		
	21-25	61(47.7)	2.66	.671		
	26-30	32(25.0)	2.53	.708		

^{*} *p*<.05

Figures in parenthesis indicate percentages

In this study, the comparisons of the necessary factor and available factors for the mean score of all the items were conducted to identify the relationship between the participants' perceived necessary factors and their perceptions of the degree to which those factors were available to them in their classroom settings. The greatest difference between the total mean score of necessary and available dimensions was 1.26 (reduced class size) and 1.25 (inservice training in the needed areas of inclusion) indicating a higher overall level of perceived inclusion necessity than available support. The smallest difference was 0.61 (positive attitude of school personal towards inclusion) and 0.64 (support from school principal) demonstrating that participants perceived this as the necessary factor as well as available support factor for the inclusion of CWD. The total mean score of all factors/items in the necessary dimension (3.53), and the total mean score of all of the items in the available dimension (2.61). Thus the difference was 0.92, which signifies that the participants observed the less availability of the inclusion factors as compared to necessary ones for involvement of CWDs in classrooms.

Discussion

The research study examines the views of ECEds concerning the factors that are necessary and available for the effective inclusion of CWD in the ECE settings in Botswana. The implication from the analysis of survey data from a sample of 128 ECEds related to the necessary and available factors are presented. The two main findings emerge from the analysis: (1) the ECEds identified a large number of necessary factors for successful inclusion of CWD and (2) they perceived that availability of inclusion factors was less as compared to necessary inclusion factors.

As per the findings of this study, it is urgent to give more attention to the ECE settings and the inclusion of CWD. The inclusion of young CWD in ECE settings is a relatively new idea to principal, parents and ECDs in Botswana; although education policy of Botswana (Republic of Botswana, 1994; 2001) suggested that as far as possible CWD must be included in the mainstream ECE settings along with the peers without disabilities. The findings from the present study suggests that principals' support, family support and appropriate material needed for teaching in class are the most necessary factors for the inclusion of CWD in inclusive class as perceived by ECEd. The finding was consistent with Villa and Thousand (2003) and Leatherman (2007) where principal support was observed as important for the inclusion of CWD in school. Researchers reported a significant role of parents/families involvement as a key contributing factor that encourages positive results in teaching young CWD in inclusive ECE program (Anderson & Mike, 2007; Bronfrenbrenner, 1979: Levy, Kim & Olive, 2006).

In this study, significant differences were found about the perceptions of necessary factors among educators who had position of teacher than those with

a position of teacher assistant. Similarly significant differences were also found between educators who had diploma qualification than those with school qualifications and with educators who had teaching experience of 11-15 years than those with less teaching experience. These educators must have attended some course on education of CWD and maybe about inclusive practices at their diploma level than those with school qualifications. The findings of this research resonate well with the results of Kucker, Acarlar, and Kapci (2006) study. The ECEds perceived high level of necessary inclusion factors were corroborated in the early childhood inclusion research. Similar findings were observed in the studies by Huges & Viella-Riestra (2007) and Vaughan, Reiss, Rothlein and Hughes (1999) where kindergarten teachers observed the instructional practice as being highly necessary (mean score of 4.96 out of 5) to implement in the inclusive early childhood classroom. Mulvihill, Shearer and Horn (2002) also found the same results where they discover that participants' perceptions of inclusion related requirements ranked several items like additional staff, special equipment, more training as highly necessary for the successful inclusion of CWD in child care programs.

The study revealed that the most available factors that are perceived by ECEds are support from principal, positive attitudes of school personnel, peer social acceptance and family involvement of CWD. Many researchers (Dagnew, 2013; Ross-hill, 2009; Soodak, Podell, & Lehman, 1998) in their study reported that teachers consider the support of the principal and other school leaders critical for the implementation of inclusion in the schools. Similar finding was evident in the present study as the ECEds believe that principal support is available to them for meeting the educational and social needs of all children in the school.

The ECEds in present study identified peer social acceptance of CWD as one of the available factor for the inclusion of young CWD in their inclusive school. The inclusion literature also supports the importance of a positive social climate as part of a constructive classroom environment that supports successful inclusion. David and Kuyinin (2012) in their study mentioned that peer social acceptance of the CWD in the inclusive school is one of the important factor to nurture self-esteem and improved e for CWD. The other available factor recognized by the ECEds was the family involvement of CWD. Many studies have established that family involvement assist children's success in inclusive educational settings and improves developmental outcomes for children with and without disabilities (Levy, Kim, & Olive, 2006; Salend, 2006). The least available factors for inclusion of CWD as identified by ECEds were reduced class size, extra collaboration with professional and in-service training in the desired areas of inclusion. Mukhopadhyay (2013) in his study found that primary teachers in Botswana are concerned about the pragmatic factors such as large class size, insufficient training and lack of support that are considered to pose major obstacles to partnership and execution of inclusion at primary schools. Similar trend was observed in Early Childhood education (ECE) centres in the present study. Many researchers (Soodak, Podell, & Lehman, 1998; Korkmaz, 2011) also established that educators should be provided

opportunities to collaborate with personnel as it may compensate their personal insecurities for the successful implementation of inclusion

The study revealed that views of all ECEds were same for the availability of inclusion factors as no statistically significant difference was found in most of the participants' responses. The findings of study also suggest the non-availability of inclusion factors for the effective results of including CWD in the inclusive educational settings as perceived by the ECEds. These findings are consistent with the author of Support Scale for Preschool Inclusion (SSPI) measure (Kucker, Acarlar & Kapei, 2006) who similarly established that study participants identified both a high level of inclusion needs and that they perceived that various inclusion factors were needed and most of the factors were unavailable for the inclusion of CWD in classrooms.

The ECEds in the present study viewed principal support, family involvement of CWD, and positive attitudes of school personnel as factors that are both necessary and available to them for the successful inclusion of CWD. This might serve as foundation for getting the support and building the professional development expertise of ECEds for meeting the needs of CWD. These factors have in common the focus in creating the good atmosphere where CWD are served as the respected members of classroom and provided the support for optimal social and behavioural development. Further, when the difference between the total mean scores of items of necessary factors (3.53) and available factors (2.61) was compared, reduced class size, in service training of the educators and collaborations with professionals were perceived as the highly necessary and less available factors to the educators. Therefore, it is essential that administrator should motivate the collaboration with educators and professionals for the inclusion of CWD in inclusive ECE settings. Similar findings were observed in Akalin, Demir, Sucuoğlu, Bakkaloğlu, and Iscen, (2014) study where preschool teachers reported class size, in service training and collaboration with professionals as important factors in the successful implementation of inclusion in the preschool. Thus, it may also be implied that the less availability of inclusion factors, reported in the present sample may be linked to the point that inclusion is a new concept that is emerging in Botswana, especially in ECE sector and more emphasis should be given to the availability of inclusion factors by all the stakeholders in the ECE settings.

Conclusion

This study aimed to find out the factors/items that are necessary and available for the successful inclusion of CWD in ECE settings of Botswana. The ECEds from the inclusive ECE settings participated in this study. The study confirms that the educators identified the necessary factors; but in reality, the availability of these factors are scarce in the early childhood settings in Botswana. The ECEds were concerned with the non-availability of in service training and collaboration with the professional in implementing successful inclusion in the ECE settings. The additional inclusion factors should be made available to the educators for the implementation of inclusion in ECE settings. The key inclusion factors that are

most needed by the ECEds are professional development to increase their knowledge and skills in teaching CWD in inclusive settings. Therefore, active involvement of all stakeholders (educators, school administration & parents) and positive interaction between the multi educational system especially at micro, meso and macro system (the child with a disability, classroom & level of school support) are important for the successful inclusion of CWD in ECE settings in Botswana

The findings of this study have several implications. The present research suggests that ECEds in Botswana perceived non-availability of a number of factors necessary for the inclusion of CWDs. Hence, it is essential that administrators should emphasise more on the provision of materials, resources, support services and conducive learning environment for the CWDs in the inclusive educational settings. The ECEds are very important stake holders, and their training must be emphasised for inclusion CWDs in early childhood settings in Botswana. Therefore, the MoESD and NGOs should take initiative in organising workshops (pre-service and in-service) for ECEds that address the knowledge and development of skills necessary to accommodate the needs of CWD in inclusive ECE settings. The MoESD should devise strategies to incorporate ECE into basic education so that more children especially CWD can have access to ECE. Furthermore, there is need to monitor the policy implementation and effectiveness of ECE programs for all children.

This research offers a basis for further investigation to provide successful inclusive ECE services in Botswana. More qualitative researches on the inclusion of CWDs are necessary to draw inferences regarding the factors for inclusion at ECE settings in the Botswana.

Like the other studies, this research study also acknowledges some limitations; including the point that sample of the study (ECEds) were selected from the two regions of ECE settings in Botswana. In this study, only one method of data collection, i.e. questionnaire was used. The other methods of data collection such as interviews, focus group, case studies and observation can also be used to obtain information from the school staff in the further studies to obtain the holistic views of educators about the necessary and available factors for the successful implementation of inclusion of CWD in early childhood schools. In addition, findings from the survey data were only representative of the population of teachers and teacher assistant, other key stakeholders such as administrators and parents were not participated in the sample; therefore this study represents the perspectives of the particular educators only. Admitting the weaknesses, this study is unique because it examines the inclusive early childhood schools in Botswana for the first time, an area that is often neglected by the researchers.

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