

# Teachers' Perception of Children's Behavioral Adjustment in Tanzanian Preprimary Schools and Their Relationship to Teachers' Cultural Beliefs Regarding Obedience, Cooperation, and Play

*Theresia Julius Shavega, MSc; Cathy van Tuijl, PhD;  
Daniel Brugman, PhD*

This article addresses teachers' perception of behavioral adjustment in preprimary school children and how they relate to teachers' cultural beliefs and to the behavioral management strategies used by the teachers. The sample consisted of 120 preprimary teachers from 60 schools in 3 regions of the mainland of Tanzania. Teachers' perception of children's behavioral adjustment and teachers' behavioral management strategies were reported by teachers through interviews, whereas teachers' cultural beliefs were measured by questionnaires. About 70% of the teachers perceived children to display externalizing behaviors in class, which ranged from moderate (13%) to high (60%) proportions of children, and teachers reported applying supportive and restrictive behavioral management strategies to stimulate behavioral adjustment in children. Teachers' use of a restrictive behavioral management strategy was positively related to teachers' perception of children's externalizing behaviors. Furthermore, children in urban schools were perceived to display more externalizing behaviors than children in rural schools. It is argued that current urbanization processes are affecting traditional, collectivist educational strategies in Tanzania. Implications for future research and educational policy are discussed. **Key words:** *behavioral adjustment, behavioral management strategies, cultural beliefs, preprimary school*

---

**Author Affiliations:** *Developmental Psychology (Ms Shavega and Dr Brugman) and Department of Pedagogical Sciences (Dr van Tuijl). Utrecht University, the Netherlands.*

*The authors declare no conflict of interest.*

**Correspondence:** *Theresia Julius Shavega, MSc, Developmental Psychology, Utrecht University, Utrecht, the Netherlands (T.J.Shavega@uu.nl or tjshavega@yahoo.co.uk).*

DOI: 10.1097/IYC.0000000000000026

**W**HEN children enter preschools, they engage in behavioral adaptation processes. The majority of the children adapt successfully, but some children may display inappropriate behaviors. For example, research showed that at school entry, behaviors such as noncompliance, frequent temper tantrums, and aggression are normative behaviors among preprimary school children (Keenan & Wakschlag, 2000, 2002; Wakschlag et al., 2007). These behaviors are regarded as part of a

developmental process that preprimary school children go through as they begin formal schooling. However, some children maintain these behaviors that may persist and significantly interfere with their social functioning in schools (Fox, Dunlar, & Cushing, 2002; Keenan & Wakschlag, 2000). For example, behaviors such as prolonged tantrums, aggression, and hurting others are considered as behavioral problems when they go beyond the developmentally appropriate (Fox et al., 2002). In preschool, these behaviors are perceived and reported by the teachers as adjustment problems.

According to Keenan and Wakschlag (2000), most preprimary school children are able to understand school rules and control their behaviors. Teachers have expectations of behavioral adjustment of the children as they start preprimary school. When children do not adjust their behaviors according to teachers' expectations, these children are perceived to display behavioral problems. Findings from developed countries have shown that some preprimary school children display aggressive, disruptive, reticent, and withdrawal behaviors, which indicate that their adjustment to the school context is problematic (Bulotsky-Shearer, Dominguez, & Bell, 2012; Bulotsky-Shearer, Fantuzzo, & McDermott, 2010). The same behaviors have been reported in developing countries (e.g., Zimbabwe), showing that some preprimary school children display aggressive and truancy behaviors (Mpofu, 2003). Children's behavioral adjustment problems in preprimary school have been reported to be associated with long-term problems such as conflictual relationships with teachers, peer rejection, poor academic performance, and school dropout (Arbeau & Coplan, 2007; Baker, 2006; Bornstein, Hahn, & Haynes, 2010; Chen, Cen, Li, & He, 2005; Hamre & Pianta, 2001; Mpofu, 2003; Silver, Measelle, Armstrong, & Essex, 2005).

Preprimary school children can encounter and develop behavioral adjustment problems as a result of being in a new situation (i.e., preprimary school), their temperamental

characteristics, the support available from teachers, and/or the interaction between these factors. For example, Rimm-Kaufman, Pianta, and Cox (2000) asserted that at school entry, children face difficulties in following school rules and directions because these are new to them, which can partly explain their behavioral adjustment and adjustment problems in pre-primary school. In addition, children experience different rearing styles at home and in school: unlike the family, school is a group setting with no shared history and more formal rules. Furthermore, teachers report that some children are difficult for them to handle because of temperamental characteristics, which have an impact on their behavioral adjustment (Mobley & Pullis, 1991; Rudasill & Rimm-Kaufman, 2009). In summary, the transition from the home setting to a relatively more formal school setting poses challenges to children, which may be perceived by teachers as adjustment problems (Arnold, Barlett, Gowani, & Merali, 2007; Keenan & Wakschlag, 2002).

To stimulate children's behavioral adjustment in the new school context, teachers in Western countries and in China have reported using various behavioral management strategies such as being warm and tolerant toward a child, and encouraging relational support among peers (Chang, 2003; Perry & Weinstein, 1998). In line with these behavioral management strategies, Sakellariou and Rentzou (2012a, 2012b) reported that in Greece, teachers help children understand others' feelings, which has been found to stimulate positive behavioral adjustment in children in school. These strategies are categorized as supportive because they stimulate positive behavioral adjustment in children. The strategies are commonly practiced in Western cultures where adults practice an authoritative parenting style, which is characterized by high warmth and behavioral control (Baumrind, 1967). In line with this parenting style, teachers practice behaviors that aim to engage children with the purpose of attaining specific socialization goals (Baumrind, 1967;

Fletcher, Wall, Cook, Madison, & Bridges, 2008). In contrast, in some countries such as Israel, specifically the Bedouin community, teachers reported to apply punitive control, including corporal punishment over the children. Punitive control contributed to anxiety and was associated with school dropout among the Bedouin children (Elbedour, Assor, Centre, & Maruyama, 1997; Elbedour, ElBassiouny, Bart, & Elbedour, 2012). Punitive control, a restrictive management strategy, may harm the child physically and psychologically. Restrictive management strategies are common in cultures, in which an authoritarian parenting style is prevalent. This parenting style is characterized by high behavioral control, but low in warmth (Baumrind, 1967; Fletcher et al., 2008). Furthermore, a study by Sakellariou and Rentzou (2012a) revealed that in Greece, teachers applied both supportive and restrictive management strategies. However, studies contend that behavioral adjustment, adjustment problems, and behavioral management strategies should be explained in light of the cultural orientation of a particular society (Auerbach, Goldstein, & Elbedour, 2000; Chang, 2003; Deater-Deckard & Dodge, 1997; Ho, Bluestein, & Jenkins, 2008), culture shapes children's development, including what is viewed as "appropriate" behavior development as well as ideas about "appropriate" behavior management strategies (Super, Harkness, Barry, & Zeitlin, 2011).

The purpose of this study was to explore teachers' perception of behavioral adjustment of children in preprimary schools in three Tanzanian regions, as well as the relationship between teachers' perception of behavioral adjustment, their behavioral management strategies, and cultural beliefs. A study of this nature in a Tanzanian cultural context is needed in understanding the relationship between teachers' cultural beliefs and teachers' perception of children's behavioral adjustment in this culture. Moreover, the cultural context in African schools traditionally differs from a Western cultural context: most Western countries have a more individualistic

orientation and most developing countries are categorized as having a collectivistic orientation (Kagitcibasi, 1996).

## ECOLOGICAL MODEL

Teachers' perception about children's behavioral adjustment and teachers' cultural beliefs can be analyzed and understood through Bronfenbrenner's ecological model. According to Bronfenbrenner (1977), behavior development is examined in the interaction processes in the immediate setting. Settings are arranged in a nested structure from the lowest level to the highest level. For preprimary school children, the immediate settings where they develop behavior are home and school. Bronfenbrenner calls these settings as belonging to the microsystem level. In this study, the microsystem level is the school setting where children interact with the teachers. The teachers have their own beliefs on how children should behave, which may be embedded in the larger Tanzanian cultural pattern. Teachers' beliefs may influence the teachers' perception of children's behavioral adjustment and adjustment problems in preprimary school. The cultural beliefs may also influence children's behavior adjustment, and this level is known as a macrosystem (Bronfenbrenner, 1977). According to Bronfenbrenner's ecological model, the macrosystem encompasses the overall cultural patterns in the society: subculture and culture. The changes, which may occur in the cultural system, may affect individual's perception, in this case teachers' perception of children's behavioral adjustment. We assume that the urbanization process, which is part of macrosystem level, may affect the traditional child-rearing practices in Tanzania, thereby changing from a collectivistic to a more individualistic orientation or practicing an eclectic approach. This may subsequently affect teachers' perception of children's behavioral adjustment in school and the behavior management strategies used to stimulate behavioral adjustment in children who display behavioral problems.

## **TEACHERS' REPORTS OF BEHAVIORAL ADJUSTMENT AND ADJUSTMENT PROBLEMS IN CHILDREN**

In Western cultures, although most children adjust successfully, behavioral adjustment problems in preschool children have been reported frequently. For example, the study by Lavigne et al (1993) among African American children as reported by psychologists and pediatricians revealed that, overall, one in seven children aged between 4 and 5 years has significant behavioral adjustment problems in school. A study carried out by Bulotsky-Shearer et al. (2010) among American children aged 3 to 6 years from low-income families, as reported by teachers, showed that one in seven of the children displayed moderately reticent behavior and one in five demonstrated moderately overactive behavior, for example, aggressive, oppositional, or inattentive behavior. They further reported that about one in nine of the children displayed higher degrees of overactive behavior. However, when less serious behavioral adjustment problems were also included, the ratio of young children who displayed behavioral adjustment problems rose. For example, findings from Rimm-Kaufman et al. (2000) on kindergarten children from low-income families in the United States showed that almost half of the teachers reported that about half of their children had difficulty in following directions. In addition, one in three teachers' reports showed that children had problems with working independently, whereas one in five teachers reported that most children displayed immature behaviors. Boys and children from low socioeconomic status families have been consistently rated as demonstrating higher rates of externalizing behavior such as aggressive behavior than girls (Bulotsky-Shearer et al., 2012; Chen et al., 2005; Chen & Li, 2000; Crowther, Bond, & Rolf, 1981) and children from high socioeconomic status families. Internalizing behaviors have been reported to be a problem among girls (Chen & Li, 2000; Lösel & Stemmler, 2012). Because no data are available on children's adjustment in a

Tanzanian context, this study explores teachers' perception of behavioral adjustment and adjustment problems in children.

## **CULTURAL BELIEFS UNDERLYING TEACHERS' PERCEPTIONS OF CHILDREN'S BEHAVIORAL ADJUSTMENT**

Cultural beliefs underlie the behaviors and attitudes of people (in this study, teachers) and the choices they make in their lives. Cultural beliefs influence teacher's perception of children's behavioral adaptations in the school context. Cultural beliefs are part of cultural orientations, which have been categorized as more individualistic or more collectivistic (Harwood, Schölmerich, & Schulze, 2000; Triandis, 1996). Individualistic orientations are mostly identified in Western countries where parents and teachers emphasize independence and autonomy as educational goals. In Western countries, a person can choose and is motivated by his or her own goals (Killen & Wainryb, 2000; Triandis, 1996; Triandis, McCusker, & Hui, 1990). Collectivistic orientations are more prominent in developing countries where aspects of togetherness, cooperation, and interdependence are identified as important values (Steed, Noh, & Heo, 2014) and individuals are motivated to adapt in line with the needs of community members (Killen & Wainryb, 2000). For example, Kagitcibasi (1996) states that the orientation of a society toward individualism or collectivism is embedded in the larger socioeconomic setting. In an agrarian society, with little trade and few social services, families are engaged in a struggle to survive. In this context, a child contributes to the family economy, and there will be more emphasis on loyalty and obedience than in a prosperous Western industrial society. In industrialized (or individualistic) societies, not only the individuals themselves but also the families can gain more profit by developing individuals' talents as there are much more opportunities for skilled jobs in these societies than in a collectivist or agrarian society. In addition, cultural beliefs regarding the appropriateness of child

rearing strategies differ between collectivistic and individualistic societies.

Different cultural beliefs lead to different management strategies, which relate to the way adults respond to children's behavior in a particular culture (Deater-Deckard & Dodge, 1997; Lansford et al., 2005). Deater-Deckard and Dodge (1997) and Ho et al. (2008) argue that the meaning of parenting behaviors—which behavioral management strategies are a part of—may vary among cultures because parenting styles acceptable in one culture may not be acceptable in another. Individualist-collectivist theorists take an eclectic perspective by arguing that each society includes both orientations. Rather than excluding options, the individualistic or collectivistic label simply points to issues being relatively more or less dominant (Harkness, Super, & van Tijen, 2000; Kagitcibasi, 1996, 2005; Raeff, Greenfield, & Quiroz, 2000; Triandis, 1989, 1996; Triandis et al., 1990). In summary, cultural orientations, including cultural beliefs, guide child-rearing goals and behavioral management strategies and shape children's behavioral adjustment (Kagitcibasi, 1996; Triandis, 1996). Whether children live in a collectivistic or an individualistic-oriented society, they are expected to adjust their behaviors to the values, norms, and rules of that society.

Tanzania, like many other developing countries, is a more collectivistic-oriented society where children are encouraged to be obedient and show respect toward elders (Lalor, 2004). However, the influence of urbanization and industrialization has led to growth in towns and cities, which may be reducing the degree of collectivism in Tanzanian society, particularly in urban areas. This suggestion is supported by findings from the National Bureau of Statistics (NBS) (2012), showing that a large number of international firms are concentrated in the big cities, with the highest concentration in Dar es Salaam. In contrast, the rural parts of Tanzania are less influenced by forces of urbanization. According to Rimm-Kaufman et al. (2000), preschool children in cities are more prone to externalizing behaviors than their counterparts in

rural areas. These researchers observed that town life might expose children to more violence and children may copy violent behaviors. However, there are no data from a Tanzanian context showing a difference between urban and rural schools in terms of children's behavioral adjustment and adjustment problems. This study intends to explore whether there is such a difference.

## TEACHERS' CULTURAL BELIEFS

Teachers' cultural beliefs guide their ideas, expectations, and actions with regard to how children should behave in the school context (Arbeau & Coplan, 2007; Erwin & Kontos, 1998; Rao, Ng, & Pearson, 2010; Steed et al., 2014). On the contrary, teachers' cultural beliefs may be influenced by their training as teachers and may therefore differ from the mainstream perspective among parents. With regard to cultural beliefs about child rearing, we restricted our study to cultural beliefs about children's obedience, cooperation among teachers and parents, and children's play. These topics were selected for two reasons. First, they represent strong core values regarding the development and management of young children's behaviors, particularly preprimary school children (Lalor, 2004). Second, these topics are related to children's behavioral adjustment in collectivist societies, like Tanzania (Wang & Tamis-LeMonda, 2003; Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, & Linting, 2010).

In collectivist societies, obedience for children implies listening and showing respect to elders (Dawes & Biersteker, 2011; Salakana, 1996; Wang & Tamis-LeMonda, 2003; Yaman et al., 2010). For example, if a child follows a parent's instructions and does what he or she is told to do, the child is regarded as obedient. In this study, it further implies that teachers expect children to treat other children nicely, follow teachers' instructions and respect teachers' guidance. In a collectivistic society, child rearing is conceived as a shared task involving cooperation among community members (Rosenthal, 1999; Steed et al., 2014;

Yaman et al., 2010). In this study, cultural beliefs about cooperation are expected to relate to cooperation among teachers and with parents in stimulating positive behaviors in children with a focus on promoting successful adjustment among children in schools. For example, if a child displays problem behavior in school, a teacher should communicate with the parent about the child's behavior and discuss it. Finally, cultural beliefs regarding play are the basis for the development of important life skills in children; for example, cooperation, tolerance, creativity, and empathy are the source for friendship (Rogers, 2011; Salami & Oyaremi, 2012). For example, a teacher who has a positive attitude toward children's play is more likely to nurture play in children, which may indirectly influence learning and behavioral adjustment. The decision to examine teachers' views about play was thus based on the assumption that play fulfills a significant role in a successful educational process, including behavioral adjustment in young children. In this study, play was restricted to children's play inside the classroom. Because empirical studies on teachers' beliefs about children's obedience, cooperation among teachers and with parents, and children's play in Tanzania are lacking, this is an exploratory study.

## **AN OVERVIEW OF TANZANIAN CONTEXT AND PREPRIMARY EDUCATION**

Tanzania is located in the Eastern part of Africa. It has a total area of 945,087 square kilometers. Its population is about 45 million (NBS, 2012). Agriculture constitutes the most important sector of the economy in the country employing about 80% of its people.

About two decades ago, children in Tanzania joined primary education (Grade 1) without preparation. In 1995, Tanzania established Education and Training Policy of the Ministry of Education and Culture (1995) to prepare young children younger than 7 years and it became mandatory. According to the Education and Training Policy, every child aged 5–6 years in the country has to attend prepri-

mary school before joining primary education (Grade 1). To implement this policy, all primary schools should have a preprimary class on their premises.

In 1995, preprimary education became part of the formal education system: 2 years for preprimary education, 7 years for primary, 4 years for ordinary secondary education, 2 years for advanced secondary education, and 3 or more years for higher education (Mta-habwa & Rao, 2010; Tanzania Institute of Education, 2009). In public preprimary schools, children spend 5 hours a day, from 7:30 a.m. to 12:30 p.m., whereas in private preprimary schools, children spend longer hours and some are in boarding schools. The language of instruction in public schools is Swahili (national language), whereas in private schools it is English.

Preprimary teachers in public schools are recruited in two ways. First, primary school teachers who have long-standing experience in teaching Grades 1 and 2 are appointed to teach pre-primary classes. These teachers attend short courses in early childhood education (ECE) in governmental teachers' college. Plan International, a nongovernmental organization, has also been organizing training on ECE for these teachers. Second, untrained individuals who have a background of ordinary secondary education are recruited to teach. In contrast to teachers in public schools, teachers in private preprimary schools have attended courses in early childhood like Montessori (a 2-year course) and a few are university graduates in ECE and psychology.

## **THIS STUDY**

The aim of this study was to explore teachers' perceptions of behavioral adjustment and adjustment problems in children and its relationship to behavioral management strategies and teachers' cultural beliefs in Tanzanian preprimary schools. We also explored how demographic characteristics (urban/rural location and class size) affect these relationships. The following research questions were formulated to guide this study:

1. What do teachers report of behavioral adjustment and adjustment problems in preprimary school children?
2. What behavioral management strategies do teachers report to use in preprimary schools?
3. Are teachers' perceptions of children's externalizing and internalizing behaviors related to behavioral management strategies and their beliefs on obedience, cooperation, and play?
4. How do location (urban vs. rural) and/or class size affect these relationships (in question 3)? If they do, what are the differences between urban and rural teachers regarding the value they attach to obedience, cooperation, and play?

## METHODS

### Participants

Tanzania has 30 regions, 25 on the mainland and five on the islands. Data collection was performed in Tanzanian mainland preprimary schools selected from three regions: Dar es Salaam, Ruvuma, and Rukwa. Each region was represented by 20 schools and 40 teachers, giving a total of 60 schools and 120 teachers. There was one class in each school. The Dar es Salaam region was selected to represent urban schools, because it is the most industrialized and densely populated area in the country (NBS, 2012), while Ruvuma was selected to represent relatively urban schools because the region is moderately urbanized. The Rukwa region was selected to represent rural schools because it is less industrialized and less urbanized. However, throughout the study, we categorized schools as urban and rural because we found that the 10 schools from Ruvuma urban center have urban characteristics and the 10 schools located far from the center have rural characteristics.

The number of teachers was limited to two from each school because the staff of a preprimary school in Tanzania consists of a head of a preprimary school unit and one or more assistant(s). We asked teachers with more than

1 year's teaching experience to participate on the assumption that they have experience with different kinds of behaviors displayed by children in schools. Experience with children's behaviors could help them report children's behavioral adjustment and adjustment problems in school more appropriately. The age range in Tanzanian preprimary schools is 4-6 years. In this study, the number of children in the classes ranged from 20 to 140, with a mode of 23, a median of 53, a mean of 62, and a standard deviation of 31. The class size was positively skewed.

Tanzanian schools have two terms in academic year. The first term starts in January and the second starts in July. Data collection was done in the second term between the end of July and the beginning of October. The majority of the teachers were female (97.5%). In total, the age ranged between 20 and 60 years. In urban schools, teachers' age ranged between 20 and 55 years and in rural schools it ranged between 23 and 60 years. The average age was categorized as follows: below 25 (8.3%), 26-35 (27.5%), 36-45 (43.3%), and 46 and above (20.8%). Regarding the educational level, the majority of the pre-primary school teachers (84.2%) had ordinary secondary education, 4.2% an advanced secondary education, 8.3% only a primary education, and 3.3% a university education. Three quarters of the teachers had training in ECE and had a certificate in ECE, 4.2% a diploma in ECE, 0.8% a degree in ECE, and 18.3% did not attend any training in ECE.

### Instruments

#### *Teacher interview schedule with regard to teachers' perception of children's behavioral adjustment*

The first author prepared an interview schedule to collect information about teachers' perception of behavioral adjustment in children and behavioral management strategies applied by teachers. The strategy we used to develop an interview schedule in this study has also been used by other researchers in developing questionnaires (e.g., Wang &

Tamis-Lemonda, 2003). To ensure content validity, we prepared open-ended questions based on anecdotal experience by interviewing 10 teachers in Dar es Salaam region. To avoid interrupting classroom activities, we conducted a face-to-face interview in the classroom after class hours. The interview lasted for 35–45 minutes. The interviews were audiotaped and transcripts were extracted. From the pilot interview, we developed categories of answers. Next, we grouped the related reported response outcomes into categories, which formed the basis for teachers' responses in this study. For example, "How do children behave in your class?" Teachers' responses included answers such as some children showing quiet, proactive, and/or unadjusted behaviors. Teachers' report on being quiet referred to children who did not make much more noise and did not move around in the class. Teachers reported that some children were very active, that they would help the teacher or other children without being asked, and that sometimes these children engage in other activities while the teacher is teaching. These children were referred to as proactive. Unadjusted behaviors were such as fighting, being naughty, kicking, and bullying other children, or did not respect teachers' guidance and instruction. In this study, unadjusted behaviors such as fighting, kicking, and bullying were reported as externalizing behaviors, which is an appropriate concept used to group these behaviors in the professional literature (Deater-Deckard & Dodge, 1997; Mantzicopoulos, 2005; Spilt, 2010). Then we asked teachers how they would like children to behave. They responded that they would like children to be quiet in class. Furthermore, we asked teachers whether boys and girls behave differently in class. Teachers reported that some boys fight, kick, and bully other children, while girls were reported to be fearful, passive, and reticent. These behaviors were categorized as externalizing and internalizing, respectively (see also Mantzicopoulos, 2005; Spilt, 2010).

After we had interviewed the teachers about behavioral adjustment problems in chil-

dren, we subsequently interviewed them about the strategies they used to manage children's behaviors. Their responses included "discussing the child's problem behavior with the child's parents." We categorized a strategy as a supportive management when it stimulated behavior of the child in a friendly way. Other responses, including "asking a child who displays behavior problems to stand while others are sitting," were categorized as a restrictive management strategy because it involved punishing a child who displayed problem behavior with the aim of ending the undesirable behavior.

From the pilot study, we prepared four main questions for a structured interview about teachers' perception of children's behavioral adjustment and two questions about behavioral management strategies, which were used in the main study. Each question had several response categories. In the main study, the teachers reported general behaviors displayed by the children and the behavioral management strategies they used to stimulate positive behavioral adjustment. For example, to answer the question: "What kind of behavioral adjustment and adjustment problems do children display while in the classroom?" we listed behavioral adjustment (three items) and adjustment problems (five items) (based on the pilot study), and the teacher responded with yes or no. An example of adjustment problem behavior was: "Children fight in the classroom." Yes-responses were given the value of 1 and no-responses were given the value of 0. Measures for adjustment problem behaviors (externalizing and internalizing) and management strategies were summed and reliability was high (see Table 1). All interviews were held face-to-face at the school with the teacher and conducted by either the first author or a research assistant. The interview lasted for 35–45 minutes. The pilot study was carried out in Dar es Salaam region for practical reasons. Teachers in Dar es Salaam come from different parts of Tanzania, which gave us the opportunity to test our measures with teachers of different regional backgrounds.

**Table 1.** Descriptive Statistics for the Teachers' Cultural Belief Questionnaire and the Teachers' Responses Regarding Children's Behavioral Adjustment and Management Strategies: Number of Items, Minimum, Maximum, Means, *SD*, and Cronbach's Alpha

Measures	No. of Items	Min	Max	<i>M</i>	<i>SD</i>	$\alpha$
<i>Teachers' cultural beliefs</i>						
Obedience	6	3.33	5.00	4.24	0.46	.85
Cooperation	4	2.25	5.00	4.53	0.52	.84
Play	4	1	2	1.38	0.40	.86
<i>Behavioral adjustment problems</i>						
Externalizing problems	5	0	5	4.09	1.40	.83
Externalizing problems in boys	3	0	3	2.84	0.59	.86
Internalizing problems in girls	4	0	4	2.70	0.95	.82
<i>Behavior management strategies</i>						
Restrictive management strategies	5	0	5	3.40	1.57	.79
Supportive management strategies	2	0	2	1.85	0.40	.81

### ***Development of cultural beliefs questionnaire***

The first author developed a cultural beliefs questionnaire for the teachers. To ensure that the items would be appropriate to the Tanzanian pre-primary school context, we took the following steps: on the basis of literature concerning cultural beliefs and child rearing in collectivistic societies (Killen & Wainryb, 2000; Lator, 2004; Salakana, 1996; Triandis, 1996; Wang & Tamis-Lemonda, 2003; Yaman et al., 2010), we designed a semistructured interview consisting of open-ended probes to determine teachers' cultural beliefs, that is, without offering choices or responses. This strategy has been used by other researchers of cultural beliefs (Wang & Tamis-Lemonda, 2003). Ten preprimary school teachers in Dar es Salaam were interviewed to explore their cultural beliefs concerning children's behaviors in preprimary school. The interviews were audiotaped and transcripts were extracted. Forty items were created on the basis of the teachers' responses and thereafter sorted and grouped to avoid overlap in meaning, which reduced the total number of items to 16. For example, items like "Children should not move in the classroom" and "Children need to sit quietly on their chairs and listen to the teacher" were repre-

sented by an item that reads "Children need to sit quietly on their chairs and listen to the teacher." Because the author developed the instruments in English, she translated them into Swahili and back translation was checked by two Tanzanian colleagues from the Open University of Tanzania, fluent in both Swahili and English. They also checked whether the items were culturally relevant to the Tanzanian context. The items were translated into Swahili because most teachers in Tanzanian schools are fluent in that language and they responded to items in Swahili language.

Items were rated on a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). A higher score implied a stronger belief in obedience, cooperation, and play, a lower score a less strong belief. Subsequently, using the data of the main study ( $N = 120$ ), we subjected the 16 items to principal component analysis (PCA), using IBM SPSS 20 to check whether the data were suitable for PCA. The correlation matrix of the items revealed many bivariate correlation coefficients of 0.30 and more. The Kaiser-Meyer-Olkin value was significant: 0.79,  $p = .000$ . Principal component analysis revealed five components with eigenvalues exceeding 1, explaining 30.10%, 18.17%, 12.61%, 7.81%, and 6.32%

of the variance, respectively, with a total of 75.03% variance.

To enable us to make a more accurate decision on the number of factors, Monte Carlo PCA for parallel analysis was calculated and we compared the first eigenvalue from PCA with the corresponding first value generated by parallel analysis. According to Pallant (2007), if the value from PCA is greater than the value from parallel analysis, the factor can be retained, but if it is smaller, it can be rejected (Table 2). After parallel analysis, two items revealing less than 0.30 correlation coefficient values in the communalities were dropped. These items read "Threats are the best way of managing a child who displays problem behavior" and "When a child displays problem behavior, the teacher has the authority to punish him/her." Consequently, 14 items remained and the Kaiser-Mayer-Olkin measure changed, becoming 0.81 ( $p = .00$ ).

Three components with eigenvalues exceeding 1, explaining 32.28%, 20.21%, and 14.37% of the variance, were found. The three components explained a total of 66.86% of the variance. Oblimin rotation was performed with all items showing a strong loading on one of the three factors; for example, component 1 (0.61-0.91), component 2 (0.79-0.87), and component 3 (0.70-0.87). The components were labeled "obedience," which consisted of six items ( $\alpha = .85$ ); "play," consisting of four items ( $\alpha = .86$ ) and "cooperation," consisting of four items ( $\alpha = .84$ ). For the number of items, means, standard deviation, and reliability, see Table 1, and for Pearson correlations between subscales, see Table 3.

### Ethical procedure

Permission to conduct the research was issued by the Regional Administrative Secretary from all three regions (Dar es Salaam, Ruvuma, and Rukwa). Verbal consent to participate in the study was sought from the teachers. We explained the aims and objectives of the study, and teachers were free to participate or not. All contacted teachers willingly agreed to participate in the study. Teachers received a small payment for their participation.

### Data analysis

The data were analyzed using descriptive statistics, multivariate analysis of variance (MANOVA), chi-square tests, and multiple regression. Descriptive statistics were used to report teachers' perceptions of children's behavioral adjustment in Tanzanian preprimary schools and other demographic variables. A one-way between-groups ANOVA was used to find out whether there was a difference in the mean score on teachers' perception of externalizing behavior across groups of class size. We ran MANOVA to test the differences in cultural beliefs between teachers working in urban and rural areas. A chi-square test was done to determine whether the perceived externalizing behavior of children was significant different across teachers in rural versus urban settings. We ran multiple regression analyses to investigate the relationship between teachers' perception of children's externalizing behavior and teachers' cultural beliefs on the one hand and behavioral management strategies on the other. A moderation model (Andrew Hayes' process models 1 and 2) (Hayes, 2012) was used to investigate the nature of the relationships. Data were analyzed using IBM SPSS 20 version (IBM corporation, Armonk, New York).

## RESULTS

### Teachers' perception of children's behavioral adjustment and adjustment problems

Seventy percent of the teachers perceived that children displayed externalizing behaviors while in class, while 22.5% of the teachers reported that children were quiet, and 7.5% of the teachers reported that children were proactive (Table 4). Teachers' reports were contrary to their expectations: 90% expected children to be quiet whereas 9% wished children to be proactive and 1% wished children to display externalizing behaviors (Table 4). The teachers reported an overall number of children who displayed externalizing behaviors in their classes, which ranged between

**Table 2.** Comparison of Eigenvalues From Principal Component Analysis (PCA) and Criterion Values From Parallel Analysis

Component Number	Actual Eigenvalues From PCA	Criterion Values From Parallel Analysis	Decision
1	4.817	1.681	Accepted
2	2.908	1.525	Accepted
3	2.018	1.413	Accepted
4	1.251	1.307	Rejected
5	1.012	1.225	Rejected

13% and 60%. According to the teachers, this implies that children displayed behavioral adjustment problems. Teachers' perception of the differences in behavioral adjustment and adjustment problems between boys and girls were explored. Generally, teachers reported that boys displayed more externalizing behaviors than girls whereas girls were reported to display more internalizing behaviors than boys (Table 4).

### Behavioral management strategies

There was a discrepancy between what teachers experienced and what they would like to see with regard to children's behavioral adjustment. Teachers reported using supportive and restrictive management strategies to stimulate children's behavioral adjustment in class. For example, talking to a child who displayed problem behavior was one of the supportive management strategies,

**Table 3.** Pearson Correlation of Variables (Bivariate) ( $N = 120$ )

Constructs	1	2	3	4	5	6	7	8
<i>Teachers' cultural beliefs</i>								
1. Obedience		0.25**	-0.16	0.04	-0.07	0.02	-0.07	-0.12
2. Cooperation			-0.26**	0.23**	0.07	0.00	0.09	-0.11
3. Play				0.17	0.05	0.07	-0.08	0.00
<i>Teachers' opinions about children's behavioral adjustment</i>								
4. Externalizing behavior (general)					0.27**	0.25**	0.38**	-0.07
5. Externalizing behavior—boys						0.19*	-0.01	-0.02
6. Internalizing behavior—girls							-0.15	0.29**
7. Restrictive management strategy								-0.06
8. Supportive management strategy								

\* $P < .05$ ; \*\* $P < .01$ .

**Table 4.** Teachers' Responses to Children's Behavioral Adjustment (Percentages and Frequencies)

Behavioral Adjustment Items	Response: Agree % (N)	Response: Disagree % (N)
<i>How do children behave in your class in general?</i>		
1. Display externalizing behavior	70.0 (84)	30.0 (36)
2. Quiet	22.5 (27)	77.5 (93)
3. Proactive	7.5 (9)	92.5 (111)
<i>What kind of behavior do you expect from children while in class?</i>		
1. Externalising behavior	1 (1)	99 (119)
2. Quiet	90 (108)	10 (12)
3. Proactive	9 (11)	91(109)
<i>Behavioral adjustment displayed in class</i>		
1. The children are restless in class.	92 (110)	8 (10)
2. The children fight in class.	87 (104)	13 (16)
3. Some children bully other children in class.	88 (105)	12 (15)
4. Some children kick other children in class.	87 (104)	13 (16)
5. The children use abusive language.	59 (71)	41 (49)
<i>Report of problem behaviors according to gender</i>		
1. Boys bully other children more than girls.	96 (115)	4 (5)
2. Boys are more restless than girls.	94 (113)	6 (7)
3. Boys fight more than girls.	94 (113)	6 (7)
4. Girls are more passive than boys.	88 (106)	12 (14)
5. Girls live in isolation than boys.	85 (102)	15 (18)
6. Girls are reticent.	92 (111)	8 (9)
7. Girls are more fearful than boys	89 (107)	11 (13)
<i>Strategies used by teachers to manage children's behavior</i>		
1. Talk to the child.	92 (111)	8 (9)
2. Discuss the child's behavior with parents.	93 (112)	7 (8)
3. Give a child a task to do.	77 (92)	23 (28)
4. Make the child stand while others are sitting.	82 (98)	18 (22)
5. Pinch the child.	79 (95)	21 (25)
6. Allow other children laugh at her/him.	72 (87)	28 (33)
7. Threaten the child.	30 (37)	70 (83)
Are there clear professional standards for teachers on how to correct a child who displays problem behaviors in class?	1 (1)	99 (119)

while asking other children to shout at the child who displayed problem behavior was an example of restrictive management strategies (Table 4). Results showed an overlap of percentages, indicating that teachers used a combination of both supportive and restrictive management strategies, but in different degrees. Furthermore, we asked teachers whether there were professional management strategic standards for supporting

children who displayed problem behaviors. Almost all (99%) of the teachers reported that there were no professional management strategic standards in schools (Table 4).

#### **Teacher's cultural beliefs regarding obedience, cooperation, and play in urban and rural locations**

We examined whether teachers' value attached to cooperation, obedience, and play

differed between rural and urban Tanzanian preprimary schools. Results revealed a statistically significant difference in teachers' cultural beliefs in urban as compared with rural areas (Wilks' lambda;  $F(3, 116) = 3.20$ ,  $p < .05$ ). MANOVA was followed by analysis of variance (ANOVA) to find the between-subject values. Because the acceptable significance value for three ANOVAs should be  $p < .017$  (Field, 2009), the between-subject results showed nonsignificant differences in teachers' cultural beliefs: play  $F(1, 118) = 5.40$ ,  $p = .022$ , cooperation  $F(1, 118) = 5.29$ ,  $p = .023$ , and obedience  $F(1, 118) = 0.01$ ,  $p = .846$ . A discriminant analysis was run to determine whether teachers' beliefs contributed to group separation. Box's  $M$  indicated that the assumption of equality of variance was met:  $7.22$ ,  $p = .32$ . Analysis of the structured matrix revealed two significant independent variables, play and cooperation, which were fairly strongly loaded:  $r = 0.74$  and  $r = -0.74$  respectively, indicating play to be more valued in urban schools and cooperation to be more valued in rural schools. The cross-validation classification showed that an overall 62.5% of the variance was correctly classified.

### **Relationship between teachers' perception of children's behavioral adjustment and teachers' cultural beliefs and behavioral management strategies**

The correlation matrix (Table 3) showed mostly low to weak correlations, while a few variables were moderately correlated. A moderately positive correlation was revealed between restrictive management strategies and externalizing behaviors ( $r = 0.38$ ,  $p < .01$ ), meaning that more frequent reports of the use of restrictive management strategies were associated with more frequent reports of externalizing behaviors in children. No correlation was found between externalizing behaviors and supportive management strategies. In addition, no correlation was found between restrictive and supportive management strategies, implying that more frequent reports of the use of restrictive management strategies were not associated with reporting

of more or less use of supportive management strategies (Table 3). Of the three topics in teachers' cultural beliefs, only cooperation revealed a significant but weak positive correlation with externalizing behaviors ( $r = 0.23$ ,  $p < .01$ ) (Table 3). This implies that a stronger belief in cooperation was associated with more reporting of externalizing behaviors.

We also examined whether class size and location (urban or rural) affected the relationship between teachers' perception of children's externalizing behaviors and teachers' cultural beliefs, and the relationship between teachers' perception of children's externalizing behaviors and behavioral management strategies. Using multiple regression analysis (Hayes, model 2) (Hayes, 2012), the interaction effect between teachers' beliefs regarding cooperation and class size was weakly negatively related to teachers' perception of externalizing behaviors in children ( $\beta = -.09$ ,  $t(5, 114) = -2.50$ ,  $p < .01$ ; Table 5). This implies that in classes with fewer children, the relationship between beliefs on cooperation and teachers' reports about their perceptions of children's externalizing behaviors was stronger than in classes with many children. Cohen's effect size value ( $d = 0.45$ ) suggests a large effect. There was no increase in variance explained by the interaction terms (Table 5). The interaction effect between restrictive management strategies and location (urban vs. rural) was weakly and negatively related to externalizing behaviors ( $\beta = -.07$ ,  $t(3, 116) = -2.27$ ,  $p < .05$ ; Table 6). In addition, there was no increase in variance explained by the interaction terms. This result indicates that in urban, the relationship between restrictive management strategies and teachers' perception of externalizing behaviors in children was stronger than in rural areas. Cohen's effect size value ( $d = -0.14$ ) suggests a weak effect.

We used a chi-square test to determine whether there was a significant difference between the expected results and observed results of teachers' perception of externalizing behavior of children between urban and rural

**Table 5.** Outcome Variable: Teachers' Perception of Children's Externalizing Behavior  
Independent Variable: Cooperation Moderator Variables: Class Size (Small, Medium, and Large) and Location (Urban or Rural)

Model Summary					
<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>	<i>p</i>
0.5914	0.3498	12.2641	5.0000	114.000	.0000
Moderation Model					
Model	Coefficient	<i>SE</i>	<i>t</i>	<i>p</i>	
Constant	0.82	0.02	38.41	.00	
Class size	0.07	0.03	2.27	.02	
Cooperation	0.02	0.02	1.25	.21	
Cooperation × class size	−0.09	0.03	−2.50	.01	
Location (urban or rural)	.11	0.03	3.52	.00	
Cooperation × location	−0.00	0.11	−0.03	.91	

settings as would be expected in the general population. This was the case. There was a significant difference between the expected and observed results of teachers' perception of externalizing behaviors of children between urban and rural schools. The difference was statistically significant  $\chi^2(5) = 28.69, p < .001$ . Cohen's effect size value ( $d = 0.79$ ) suggests a strong effect. A one-way between-groups ANOVA was conducted to explore the impact of class size on teachers' perception of externalizing behaviors. Class size was divided into three groups: small, medium, and large. We found a statistically significant difference in mean scores between the groups  $F(2, 117)$

$= 12.65, p < .01$ . A post hoc comparison using Turkey HSD test indicated that the mean score for group 1 ( $N = 17$ ; range 18–40 children) ( $M = 0.63, SD = 0.38$ ) was significantly different from group 2 ( $N = 16$ ; range 41–60 children), ( $M = 0.85, SD = 0.24$ ) and group 3 ( $N = 27$ ; range 61–140 children) ( $M = 0.91, SD = 0.27$ ). Cohen's effect size value ( $d = 1.57$ ) suggests a strong effect. We did not find a significant difference between Group 2 and Group 3. In sum, the findings revealed that teachers with smaller class sizes were found to perceive less behavioral adjustment problems in children than those with medium or large class sizes.

**Table 6.** Outcome Variable: Teachers' Perception of Children's Externalizing Behavior  
Independent Variable: Restrictive Management Strategies Moderator Variable: Location (Rural/Urban)

Model Summary					
<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>	<i>p</i>
0.5569	0.3101	12.597	3.0000	116.000	.0000
Moderation Model					
Model	Coefficient	<i>SE</i>	<i>t</i>	<i>p</i>	
Constant	0.82	0.02	38.34	.00	
Location (rural/urban)	0.20	0.02	4.75	.00	
Restrictive management strategy	0.06	0.02	3.85	.00	
Restrictive management strategy × location	−0.07	0.02	−2.27	.02	

## DISCUSSION

The purpose of this study was to explore teachers' perception of behavioral adjustment displayed by children, their relationship with behavioral management strategies used by teachers and teachers' cultural beliefs in Tanzanian pre-primary schools, as well as possible moderators (urban/rural and class size) of these relationships. The teachers' perception of behavioral adjustment and adjustment problems reported in this study reflects a general picture of the existence of these problems in Tanzanian preprimary schools. We used an explorative approach, which was used earlier by Rimm-Kaufman et al. (2000).

In this study, teachers reported that they perceived children to display behavioral adjustment and adjustment problems in preprimary schools. Teachers see children as successfully adapting to the new environment. However, a high percentage of teachers reported that children displayed a variety of adjustment problems of externalizing behaviors (Table 1). The teachers' perception of various externalizing behaviors in children reported in this study might be attributed to large class sizes. We found a significant impact of class size on teachers' perception of externalizing behaviors, indicating that teachers in classes of small size perceived less externalizing behaviors than teachers in classes of medium or large size. In the latter circumstance, a teacher may perceive difficulties in managing children's behavior in classes with a large number of children. For example, it is difficult for a teacher to manage and pay individual attention in a class with more than 60 children. This finding is consistent with Elbedour et al. (2012) and Rimm-Kaufman et al. (2000), who argue that overcrowded classrooms contribute to a disruptive environment. The high percentage of teachers reporting perceiving a high degree of externalizing behaviors in children may mean that the job is stressful for teachers.

The higher levels of teachers' perception of externalizing behaviors in urban schools might be attributed to children's exposure

to urban life. Although findings in this study reflect a general picture of teachers' perception of behavioral adjustment and adjustment problems in the children, they are contrary to Rimm-Kaufman et al.'s (2000) findings of a higher frequency of children's problems behaviors in rural schools than in urban schools. Nevertheless, Rimm-Kaufman et al. (2000) argue that crowded and anonymous urban environments might be associated with violent and aggressive behavior on the part of adults and children, and that younger children might easily copy and practice these behaviors in classroom. In addition, urban children might have been more often exposed to social media such televisions and Internet than children in rural areas, from which they might learn and copy different kinds of behaviors including aggression (Anderson & Bushman, 2001; Gentile, Lynch, Linder, & Walsh, 2004; Huesmann, Moise-Titus, Podolski, & Eron, 2003; Silvern & Williamson, 1987). The difference in teachers' perception of children's externalizing behaviors between urban and rural schools possibly suggests that the urbanization process that is taking place in Tanzanian cities is moving the traditional collectivistic orientation toward a more individualistic orientation.

Our findings show that both supportive and restrictive management strategies were reported to be used in managing children's behaviors. These findings are consistent with the study by Sakellariou and Rentzou (2012a), which indicates that teachers use both strategies, but in different degrees. This may reflect the lack of standard management strategies to stimulate behavioral adjustment in children, a view that can be supported by the fact that 99% of the teachers responded that there were no professional management standards in Tanzanian preprimary schools.

Reports of using restrictive management strategies were positively related to teachers' reports of their perception of externalizing behaviors in children. This might be the case because a restrictive management strategy may trigger anger in children and children may consequently behave aggressively (e.g., Hasanvand, Khaledian, & Merati, 2012).

Similarly, teachers may not tolerate externalizing behaviors, which may force them to respond negatively in the form of punishment (Birch & Ladd, 1998). The relationship may, therefore, suggest a bidirectional or circular pattern (Doumen et al., 2008; Myers & Pianta, 2008; Patterson, 1977). However, the general report of teachers' perception of externalizing behaviors in this study reflects its status as an exploratory study, which is correlational in nature and cannot establish the direction of the relationship between variables.

Surprisingly, no correlation was found between teachers' beliefs and behavioral management strategies. Behavior management strategies are, of course, influenced not only by beliefs, but also by the temperament and behavior of the child (cf. Deater-Deckard & Dodge, 1997) as well as characteristics of the teacher and the situation. Also surprisingly, a positive correlation was found between teachers' beliefs on cooperation with parents and their perception of children's externalizing behaviors. This may imply that teachers cooperate with parents in reaction to the perceived externalizing behaviors in children. Again, this study was exploratory and cannot come to any conclusion on the direction of effects.

In this study, location, that is, urban versus rural areas, was introduced to examine if it affected the relationship between restrictive management strategies and teachers' perception of children's externalizing behaviors in schools. This indeed was found to be the case. The findings suggest that teachers were more likely to apply restrictive management strategies in urban schools than in rural schools. This may be attributed to teachers' perception of children's externalizing behaviors in urban schools as reported in this study. The perceived externalizing behaviors are more likely to attract restrictive management strategies because it may cause anger in the teachers. However, these results should alert teachers and educational psychologists to the fact that restrictive management strategies are more likely to impair children's behavioral adjustment in early years. Moreover, children are

unlikely to learn appropriate behaviors from being punished, but they might copy the teacher's punishing behavior. The findings suggest that supportive management strategies might be the best option in stimulating behavioral adjustment in children. This may lessen children's behavioral adjustment problems in subsequent school years (cf. Chang, 2003; Perry & Weinstein, 1998; Sakellariou & Rentzou, 2012a).

We also examined whether class size had an effect on the relationship between teachers' beliefs regarding cooperation and teachers' perception of children's externalizing behaviors. The correlation was significant, but rather low in classes with relatively few children. Although the moderator effect was fairly small, this outcome may suggest that in Tanzanian preprimary school, teachers' beliefs on cooperation play a more significant role in mediating the perceived behavioral adjustment problems in classes with few children as compared with classes with many children.

We examined whether there were differences in cultural beliefs concerning cooperation, obedience, and play between teachers working in urban schools as opposed to those working in rural schools in Tanzania. This partly was the case. Cooperation was more highly valued in rural schools, whereas play was more highly valued in urban schools. This might imply that teachers in Tanzanian rural schools consider cooperation with parents as an important factor to stimulate behavioral adjustment in children than teachers in urban schools. In addition, Tanzanian rural areas are predominantly collectivist oriented; as a result, cooperation receives more emphasis in rural schools (Kagitcibasi, 2005; Yaman et al., 2010). Within an individualistic orientation and in modern parenting attitudes, play is highly valued and encouraged (Rogers, 2011). This may reflect the urbanization processes taking place in urban areas, which have possibly shifted town life from a more collectivistic to a more individualistic orientation.

Teachers in urban and rural schools did not differ in their beliefs concerning obedience in children. This implies that although

Tanzanian cities like Dar es Salaam are more industrialized, which may give rise to a more individualistic lifestyle, their populations have retained their cultural values, which seem to reflect a more collectivistic orientation, as exemplified in obedience. However, it might be that Tanzanian society reflects both orientations, with the collectivistic orientation being dominant (Kagitcibasi, 1996, 2005; Super et al., 2011; Triandis et al., 1990). The high percentage (about 90%) of teachers who expected children to be quiet while in class supports this interpretation (Table 4).

### **Strengths, limitations, and future direction**

This is the first study to address teachers' perception of behavioral adjustment and adjustment problems in children in a Tanzanian preprimary school context, and their relationship with the management strategies used by teachers and teachers' cultural beliefs. No findings regarding teachers' perception of externalizing behaviors in children, and management strategies reported to be used by the teachers, were available for Africa and Tanzania, in particular. Our results therefore shed light on the teachers' perception of behavioral adjustment and adjustment problems displayed by preprimary school children and behavioral management strategies reported to be used by teachers in Tanzania. We developed interviews and a questionnaire for teachers to be used in the Tanzanian cultural context and we used a probing procedure to develop this questionnaire, which has been used before by other researchers (Wang & Tamis-LeMonda, 2003). The questionnaire was found to be reliable (Table 1), which added to the methodological strengths of this study. Furthermore, the same procedure of gaining a general view of the problem behaviors in children has been used by other researchers (see Rimm-Kaufman et al., 2000).

The study has the following limitations. First, teachers in this study reported an overall picture of their perception of children's behavioral adjustment and adjustment problems in the classroom. For example, we used

interviews to explore the extent to which teachers perceived behavioral adjustment of children in class. Such data did not exist before, which might have led to guessing and subsequent underreporting or overreporting of such behavioral adjustment problems. In addition, large class sizes might have inhibited teachers from reporting an accurate number of children who displayed behavioral adjustment problems. For a clearer picture of behavioral adjustment in children, future research needs to consider reporting on the individual child's behaviors in the class. Second, because the study explored basic information teachers reported several behavioral management strategies without prioritizing the ones they used most. Future research should consider this as well as situations in which they use these strategies. Third, because this study was exploratory, it was limited to teacher interviews and questionnaires; we suggest that to get a more valid picture of children's behavioral adjustment, future studies should consider a classroom observation method. Fourth, future research should investigate how children perceive and interpret the behavioral management strategies used by teachers in Tanzania. This may produce more detailed empirical evidence on the role of the behavioral management strategies used in a Tanzanian context. Fifth, we suggest that in future, research into more effective strategies for managing behavior in classes with many (more than 40) children is needed.

### **Implications**

To reduce children's behavioral problems in preprimary schools as perceived by teachers, we suggest that preventive strategies for managing child behaviors, like clear rules and behavioral instructions for teachers, need to be considered in the Tanzanian context in both pre-primary education and teacher training colleges. We suggest that teachers, educational psychologists, and policy makers need to consider children's behavior in early years as an important aspect that needs to be developed and nurtured appropriately, because it is an antecedent of important social and

academic developmental aspects that follow in the child's life. Furthermore, short-term plans need to be implemented to cope with the current large class size while working with long-term plans such as employing more teachers to cope with large class size in the country.

## CONCLUSION

This study highlights a general picture of teachers' perception of behavioral adjustment and adjustment problems of young children in

Tanzanian preprimary schools, an area that is underresearched. Types of behavioral adjustment problems at the age of 4–6 years such as externalizing behavior that are reported in this study are the same as those reported in developed countries. Applying both supportive and restrictive behavioral management strategies indicates that in Tanzania, teachers apply authoritative and authoritarian child-rearing styles. To stimulate positive behavioral adjustment in children, teachers should learn and apply more supportive behavioral management strategies.

## REFERENCES

- Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science, 12*(5), 353–359. doi:10.1111/1467-9280.00366
- Arbeau, K. A., & Coplan, R. J. (2007). Kindergarten teachers' beliefs and responses to hypothetical prosocial, asocial, and antisocial children. *Merrill-Palmer Quarterly, 53*(2), 291–318. doi:10.1353/mpq.2007.007
- Arnold, C., Barlett, K., Gowani, S., & Merali, R. (2007). *Is everybody ready? Readiness, transitions and continuity: Reflection and moving forward*. Working Paper 41. The Hague, The Netherlands: Bernard van Leer Foundation.
- Auerbach, J. G., Goldstein, E., & Elbedour, S. (2000). Behavior problems in Bedouin elementary school children. *Transcultural Psychiatry, 37*(2), 229–241. doi:10.1177/136346150003700205
- Baker, J. A. (2006). Contribution of teacher-child relationships to positive adjustment during elementary school. *Journal of School Psychology, 44*(3), 211–229. doi:10.1016/j.jsp.2006.02.002
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75*, 43–88.
- Birch, S., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher-child relationship. *Journal of Developmental Psychology, 34*(5), 934–946. doi:10.1037/0012-1049.34.5.934
- Bornstein, M. H., Hahn, C., & Haynes, O. M. (2010). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescent: developmental cascades. *Developmental Psychopathology, 22*, 717–735. doi:10.1017/S0954579410000416
- Bronfenbrenner, U. (1977). Towards an ecology of human development. *American Psychologist, 32*, 515–531.
- Bulotsky-Shearer, R. J., Dominguez, X., & Bell, E. R. (2012). Preschool behavioral context and school readiness outcome for low-income children: A multi-level examination of child and classroom level influences. *Journal of Educational Psychology, 104*(2), 421–438. doi:10.1037/a0026301
- Bulotsky-Shearer, R. J., Fantuzzo, J. W., & McDermott, P. A. (2010). Typology of emotional and behavioral adjustment for low income children: A child centered approach. *Journal of Applied Developmental Psychology, 31*, 180–191. doi:10.1016/j.appdev.2009.12.002
- Chang, L. (2003). Variable effects of children's aggression, social withdrawal and prosocial leadership as functions of teacher beliefs and behaviors. *Child Development, 74*(2), 535–548.
- Chen, X., Cen, G., Li, D., & He, Y. (2005). Social functioning and adjustment in Chinese children: The impact of historical time. *Child Development, 76*(1), 182–195. doi:10.1111/j.1467-8624.2005.00838.x
- Chen, X., & Li, B. (2000). Depressed mood in Chinese children: Developmental significance for social and school adjustment. *International Journal of Behavioral Development, 24*, 472–479.
- Crowther, J. H., Bond, L. A., & Rolf, J. E. (1981). The incidence, prevalence, and severity of behavioral disorders among preschool-aged children in day care. *Journal of Abnormal Child Psychology, 9*(1), 23–42.
- Dawes, A., & Biersteker, L. (2011). Early childhood development. In B. A. Nsamenang, & T. M. S. Tchembe (Eds.), *Handbook of African educational theories and practices: A generative teacher education Curriculum* (pp. 111–122). Bamenda, Cameroon: Human Development Resource Centre.
- Deater-Deckard, K., & Dodge, K. A. (1997). Externalizing behavior problems and discipline revisited: Nonlinear effects and variability by culture, context, and gender. *Psychological Inquiry: An International Journal of the Advancement of*

- Psychological Theory*, 8(3), 161-175. doi:10.1207/s15327965pli0803\_1
- Doumen, S., Verschueren, K., Buyse, E., Germeijs, V., Luyckx, K., & Soenens, B. (2008). Reciprocal relations between teacher-child conflict and aggressive behavior in kindergarten: A three-wave longitudinal study. *Journal of Clinical Child & Adolescent Psychology*, 37(3), 588-599. doi:10.1080/15374410802148079
- Elbedour, S., Assor, A., Centre, B. A., & Maruyama, G. M. (1997). Physical and psychological measurement in schools: The abusive behavior of teachers in Bedouin schools in Israel. *School Psychology*, 18(3), 201-215.
- Elbedour, S., ElBassiouny, A., Bart, W. M., & Elbedour, H. (2012). School violence in Bedouin schools in Israel: A re-examination. *School Psychology International*, 34(3), 257-269. doi:10.1177/043034312453388
- Erwin, E. J., & Kontos, S. (1998). Parents' and kindergarten teachers' beliefs about the effects of child care. *Early Education and Development*, 9(2), 131-146. doi:10.1207/s15566935eed0902-2
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: Sage.
- Fletcher, A. C., Wall, J. K., Cook, E. C., Madison, K. J., & Bridges, T. H. (2008). Parenting styles as a moderator of associations between maternal disciplinary strategies and child well-being. *Journal of Family Issues*, 29(12), 1724-1744. doi:10.1177/0192513x08322933
- Fox, L., Dunlar, G., & Cushing, L. (2002). Early intervention, positive behavior support, and transition to school. *Journal of Emotional and Behavioral Disorders*, 10(3), 149-157. doi:10.1177/10634266020100030301
- Gentile, D. A., Lynch, P. J., Linder, J. R., & Walsh, D. A. (2004). The effects of violent video games habits on adolescent hostility, aggressive behaviors and schools performance. *Journal of Adolescence*, 27(1), 5-22.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectories of children's school outcomes through eighth grade. *Child Development*, 72(2), 625-638.
- Harkness, S., Super, C. M., & van Tijen, N. (2000). Individualism and the "Western mind" reconsidered: American and Dutch parents' ethnotheories of the child. In S. Harkness, C. Raef, & C. M. Super (Eds.), *Variability in the social construction of the child. New Directions for Child and Adolescent Development* (Vol. 87, pp. 23-39).
- Harwood, R. L., Schölmerich, A., & Schulze, P. A. (2000). Homogeneity and heterogeneity in cultural beliefs systems. In S. Harkness, C. Raef, & C. M. Super (Eds.), *Variability in the social construction of the child. New Directions for Child and Adolescent Development* (Vol. 87, pp. 41-57). San Francisco, CA: Jossey-Bass.
- Hasanvand, B., Khaledian, M., & Merati, A. R. (2012). The relationship of physical punishment with aggression and educational failure in children. *Archives of Applied Science Research*, 4(6), 2452-2460.
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for mediation, moderation, and conditional process modelling (white paper)*. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Ho, C., Bluestein, D. N., & Jenkins, J. M. (2008). Cultural differences in the relationship between parenting and children's behavior. *Developmental Psychology*, 44(2), 507-522. doi:10.1037/0012-1649.44.2.507
- Huesmann, L. R., Moise-Titus, J., Podolski, C., & Eron, L. D. (2003). Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977-1992. *Developmental Psychology*, 39(2), 201-221. doi:10.1037/0012-1649.39.2.201
- Kagitcibasi, C. (1996). The autonomous-related self: A new synthesis. *European Psychologists*, 1(3), 180-186.
- Kagitcibasi, C. (2005). Autonomy and relatedness in cultural context: Implication of self and family. *Journal of Cross-Cultural Psychology*, 36, 403-422. doi:10.1177/00220221052755959
- Keenan, K., & Wakschlag, L. S. (2000). More than the terrible twos: The nature and severity of behavior problems in clinic-referral preschool children. *Journal of Abnormal Child Psychology*, 28(1), 33-46.
- Keenan, K., & Wakschlag, L. S. (2002). Can a valid diagnosis of disruptive behavior disorder be made in preschool children? *The American Journal of Psychiatry*, 159(3), 351-358. doi:10.1177/appl.ajp.159.3.351
- Killen, M., & Wainryb, C. (2000). Independence and interdependence in diverse cultural contexts. In S. Harkness, C. Raef, & C. M. Super (Eds.), *Variability in the social construction of the child. New Directions for Child and Adolescent Development* (Vol. 87, pp. 5-21). San Francisco, CA: Jossey-Bass.
- Lalor, K. (2004). Child sexual abuse in Tanzania and Kenya. *Child Abuse and Neglect*, 28(8) 833-844. Retrieved from <http://www.sciencedirect.com/science>
- Lansford, J. E., Chang, L., Dodge, K. A., Malone, P. S., Oburu, P., Palmérus, K., . . . Quinn, N. (2005). Physical discipline and children's adjustment: Cultural normative as moderator. *Child Development*, 76(6), 1234-1246. doi:10.1111/j.1467.8624.2005.00847x
- Lavigne, J. V., Binns, H. J., Christoffel, K. K., Rosenbaum, D., Arend, R., Smith, K., . . . McGuire, P. A. (1993). Behavioral and emotional problems among preschool children in pediatric primary care: Prevalence and pediatricians' recognition. *Pediatric*, 91, 649-655. Retrieved from <http://pediatrics.aappublications.org/content/91/3/649/full+html>
- Lösel, F., & Stemmler, M. (2012). Continuity and patterns of externalizing and internalizing behavior problems

- in girls: A valuable- and person oriented study from preschool to youth age. *Psychological Testing and Assessment Modeling*, 54(3), 307-319.
- Mantzicopoulos, P. (2005). Conflictual relationships between kindergarten children and their teachers: Associations with child and classroom context variables. *Journal of School Psychology*, 43, 425-442. doi:10.1016/j.jsp.2005.09.004
- Mobley, C. E., & Pullis, M. E. (1991). Temperament and behavioral adjustment in preschool children. *Early Childhood Research Quarterly*, 6, 577-586.
- Mpofu, E. (2003). Conduct disorder in children: Presentation, treatment options and cultural efficacy in African setting. *International Journal of Disability, Community and Rehabilitation*, 2(1), 44-49.
- Mtahabwa, L., & Rao, N. (2010). Pre-primary education in Tanzania: Observation from urban and rural classrooms. *International Journal of Educational Development*, 30, 227-235. doi:10.1016/j.ijedudev.2009.10.002
- Myers, S. S., & Pianta, R. C. (2008). Developmental commentary: individual and contextual influences on student-teacher child relationships and children's early problem behaviors. *Journal of Clinical Child and Adolescent Psychology*, 37(3), 600-608. doi:10.1080/15374410802148160
- National Bureau of Statistics. (2012). *Annual survey of industrial production, 2009*. Statistical report. Dar es Salaam, Tanzania: Author.
- Pallant, J. (2007). *A step-by-step guide to data analysis using SPSS version 15 survival manual* (3rd ed.). England: McGraw-Hill, University Press.
- Patterson, G. R. (1977). Accelerating stimuli for two classes of coercive behaviors. *Journal of Abnormal Child Psychology*, 5(4), 335-350.
- Perry, K. E., & Weinstein, R. S. (1998). The social context of early schooling and children's school adjustment. *Educational Psychologist*, 33(4), 177-194. doi:10.1207/s5326985ep33043
- Raeff, C., Greenfield, P. M., & Quiroz, B. (2000). Conceptualizing intergenerational relationships in cultural contexts of individualism and collectivism. In S. Harkness, C. Raeff, & C. M. Super (Eds.), *Variability in the social construction of the child. New directions for child and adolescent development* (Vol. 87, pp. 59-74). Hoboken NJ: Wiley & Sons Inc.
- Rao, N., Ng, S. S. N., & Pearson, E. (2010). Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice. In C. K. K. Chan, & N. Rao (Eds.), *Revisiting the Chinese learner: Changing contexts, changing education, CERC studies in comparative education* (Vol. 25, pp. 255-279). Hong-Kong: Comparative Education Research Center.
- Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgment of problems in the transition to kindergarten. *Early Childhood Research Quarterly*, 15(2), 147-166.
- S. Rogers (Ed.). (2011). *Rethinking play and pedagogy in early childhood education: Concepts, contexts and cultures*. London: Routledge.
- Rosenthal, M. K. (1999). Out-of-home child care research: A cultural perspective. *International Journal of Behavioral Development*, 23(2), 477-518.
- Rudasill, K. M., & Rimm-Kaufman, S. E. (2009). Teacher-child relationship quality: The role of child temperament and teacher-child interactions. *Early Childhood Research Quarterly*, 24, 107-120. doi:10.1016/j.ecresq.2008.12.003
- Sakellariou, M., & Rentzou, K. (2012a). Greek pre-service kindergarten teachers' beliefs and intentions about the importance of teacher-child interactions. *Early Child Development and Care*, 182(1), 123-135. doi:10.1080/03004430.2010.545887
- Sakellariou, M., & Rentzou, K. (2012b). Cypriot pre-service kindergarten teachers' beliefs and intentions about the importance of teacher/child interaction. *Early Childhood Education*, 39, 413-420. doi:10.1007/s10643-011-0472-y
- Salakana, L. N. (1996). *Traditional care practices in Tanzania: Supplementing PLAN training programs*. Unpublished master's thesis. Dar es Salaam, Tanzania: University of Dar es Salaam.
- Salami, I. A., & Oyaremi, M. K. (2012). Teachers' knowledge, use and perception of the relevance of Yoruba indigenous child's play to pre-primary and primary schools in Nigeria. *Education Research Journal*, 2(5), 146-155.
- Silver, R. B., Measelle, J. R., Armstrong, J. M., & Essex, M. J. (2005). Trajectories of classroom externalizing behavior: contributions of child characteristics, family characteristics and the teacher-child relationship during the school transition. *Journal of School Psychology*, 43(1), 39-60. doi:10.1016/j.jsp.2004.11.003
- Silvern, S. B., & Williamson, P. A. (1987). The effects of video game play on young children's aggression, fantasy, and prosocial behavior. *Journal of Applied Developmental Psychology*, 8, 453-462.
- Spilt, J. L. (2010). *Relationships between teachers and disruptive children in kindergarten: An exploration of different methods and perspectives, and the possibility of change*. PhD Dissertation. University of Amsterdam.
- Steed, E. A., Noh, J., & Heo, K. H. (2014). A cross-cultural comparison of positive behavioral interventions and supports in early childhood classrooms in the United States and South Korea. *Infant and Young Children*, 27(1), 30-42. doi:10.1097/IYC.0b013e3182a4ec46
- Super, C. M., Harkness, S., Barry, O., & Zeitlin, M. (2011). Think locally, act globally: Contributions of African research to child development. *Child Development Perspectives*, 5(2), 119-125.
- Tanzania Institute of Education. (2009). *Framework for the review of certificate teachers' education curriculum*. Dar es Salaam, Tanzania: Author.

- Triandis, H. C. (1989). The self and social behavior in differing cultural beliefs. *Psychological Review*, *96*(3), 506-520. doi:10.1037/0033-295x.96.3.506
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, *51*(4), 407-415. doi:10.1037/0003-066x.51.4.407
- Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, *59*(5), 1006-1020. doi:10.1037/0022-3514.59.5.1006
- Wakschlag, L. S., Briggs-Gowan, M. J., Cäiter, A. S., Hill, C., Danis, B., Keenan, K., . . . Leventhal, B. L. (2007). A developmental framework for distinguishing disruptive behavior from normative misbehavior in preschool children. *Journal of Child and Psychiatry*, *40*(10), 976-987. doi:10.1111/j.1469-7610.2007.01786.x
- Wang, S., & Tamis-LeMonda, C. S. (2003). Do child-rearing values in Taiwan and United States reflect cultural values of collectivism and individualism? *Journal of Cross-cultural Psychology*, *34*(6), 629-642. doi:10.1177/0022022103255498
- Yaman, A., Mesman, J., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Linting, M. (2010). Parenting in an individualistic culture with a collectivistic cultural background: The case of Turkish immigrant families with toddlers in the Netherlands. *Journal of Child and Family Studies*, *19*(5), 617-628. doi:10.1007/s10826-009-934\_y