"It is okay to be different" – Anti-bias practices of early childhood teachers in Saudi Arabia

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Early education helping young children manage prejudiced attitudes towards themselves and others is urgent. Early childhood (EC) teachers in Saudi Arabia are making significant changes by applying an anti-bias approach to deal with such issues with young children. In the study reported on here we used a quantitative approach to explore anti-bias education, including an analysis of approaches to the cultural environment, which includes teaching practices and associated learning resources. Many teachers ($n = 142$) in the cities of Jeddah and Riyadh in Saudi Arabia contributed to this study by completing a questionnaire. Teachers' classroom practices, such as role-play, pictures, books, toys, and materials in teaching children the concept of anti-bias, were deeply explored. The results of the study show that the greater the previous experience of teachers in teaching children from a culture different from their own, the greater the application of the concept of anti-bias in creating the classroom environment. There is a need for further studies on the extent to which anti-bias education is being implemented on a larger scale in primary schools in Saudi Arabia.

Keywords: books; curricula; diversity; education; equity; multiculturalism; pictures; prejudice

Introduction

Children have a sense of discovery from a young age and are usually drawn to differences and finding an explanation. Despite the cultural diversity societies experience globally, many teachers in early childhood education (ECE) consider children below first grade to be too young to be involved in discussions about racism (Husband, 2010). Several anti-bias theorists worldwide have discussed the concept of anti-bias and its relationship to educating children about diversity, as well as reviewing the ongoing treatment of structural and personal change, which can reinforce types of oppression in individuals (Derman-Sparks & Phillips, 1997; Husband, 2010; Lawrence & Tatum, 1997; Richard, 2003). There is no doubt that the environment surrounding children has a significant influence on them from a very young age as they begin to recognise physical differences related to race and understand the situations that occur before them, whether through adults or peers (Derman-Sparks & Ramsey, 2011; Yates, 2019). Children need to feel valued, that their ideas are listened to and their work is fully respected by their teachers and peers. This will shape their positive perceptions of themselves and others and has a long-term influence on their thinking and direction in the future.

There is an urgent need to enhance and foster children's anti-bias practices in Saudi curricula in ECE (Allehyani, 2022a). Anti-bias education, in its conceptualisation, includes the creation of a society that consciously supports and encourages all dimensions of human differences between individuals, including culture, ethnicity, language, learning style, family structure, religion, gender, age and socioeconomic differences. Racism was invented by people, yet we cannot deny its societal importance or adverse effects on individuals (Castagno, 2014). In this context, Escayg (2018) defines anti-racism policy for ECE as recognising the continuing effects of racism within societies (material and non-material). These effects are generally manifested at individual, institutional and cultural levels to ensure a safe, welcoming and non-violent environment for young children and their families who suffer racial discrimination when they go to school. Indeed, young children are described as racially innocent, meaning that they are free from racist tendencies or behaviour and usually acquire these from adults in the surrounding environment (Escayg, 2018). Research has shown that children are mindful of racial variances in early childhood (Kelly, Liu, Ge, Quinn, Slater, Lee, Liu & Pascalis, 2007). Therefore, teaching young children anti-bias attitudes and skills is one of the fundamentals of learning to accept others and bring internal and external peace to individuals.

Anti-bias is a thorny issue in many EC organisations, so teachers must be able to articulate this principle to children using appropriate approaches. Due to Derman-Sparks' initiating work in the late 1980s, anti-bias curricula emerged in 1989 (Escayg, 2018). This type of education is based on a transitional developmental perspective, which emphasises allocating age-appropriate materials and activities to children regarding their different intellectual and social-emotional developmental milestones (Derman-Sparks & Edwards, 2010). Therefore, teachers must educate children about anti-bias actions and attitudes in a way that represents respect for others from diverse cultural backgrounds. Given the scarcity of current literature about the anti-bias approach in ECE, the results of this study will add valuable knowledge to the existing literature in the field. Furthermore, the study is unique in revealing pre-school teachers' practices of anti-bias education in Saudi Arabia, which might drive and inspire further research.

Literature Review

Early in the last century, Horkheimer founded critical theory, which concerns criticism and change of the whole society, contrasting traditional theory, which is focused only on understanding or explanation (Dahms, 2017). Critical theory was developed by the Frankfurt School after the First World War in Germany, where it aimed to eliminate disappointment and frustration caused by unbridled capitalism with methods of studying economic, political, cultural, social, educational and psychological phenomena (Dahms, 2017). The current investigation is framed by critical theory as it connects anti-bias issues and related aspects such as race, class, gender, and other forces (Villaverde, Kincheloe & Helyar, 2006). The subject of bias has shaped educational institutions and individual consciousness (Villaverde et al., 2006). As a result of implanting critical theory in anti-bias education, children will have the opportunity to critically reflect, following educational approaches that foster their inner curiosity about exploring identity, which has so far been stifled in ECE (Erwin, Bacon & Lalvani, 2023). Our research also aligns with the critical hypothesis that adults and children have the capacity to act and think logically and be self-reflexive. This theory is a guideline to help researchers explore teachers' deeply rooted anti-bias practices using cultural resources such as reading books during story time, which can teach children about social justice and shift their thinking toward equity and subjectivity (Hawkins, 2014). Given Saudi Arabia's recent interest in multicultural education, which is included in ECE curricula and aims to teach students how to respect cultural diversity and acquire critical thinking skills, framing our study using critical theory contributes to an in-depth discussion on anti-bias (Aldegether, 2020; Allehyani, 2022a).

Context of Saudi early childhood education

The education system in Saudi Arabia is witnessing significant developments concerning the quality of ECE and the expansion of services provided to children (Allehyani & Alfayez, 2022). Within the cultural context, Saudi Arabia differs in ethnicity, gender, national origin, religious group and linguistic background (Aldegether, 2020; Allehyani, 2016, 2022a, 2022b). With the tremendous cultural change in Saudi social lives becoming more open to Western culture, the diversity in schools in Saudi Arabia has strengthened the urgent call for multicultural education (Alharbi, 2020). According to the Saudi National Curriculum Framework, children must develop an open and global perspective in a positive environment promoting civic values such as tolerance, justice and peace, and is free of bias (Ministry of Education, Kingdom of Saudi Arabia, 2018). One of the primary goals of Saudi Arabia's Vision 2030 is to support students in acquiring critical thinking skills for the texts presented to them, whether within the curriculum or life experiences, to ensure their smooth future integration into different societies (Aldegether, 2020).

Ensuring equity in Saudi education for both genders is one of the core elements in achieving a more gender-balanced representation to eliminate racist attitudes and perceptions in society as part of the government's efforts towards cultural westernisation. However, anti-bias education is considered an innovative trend in children's education in Saudi Arabia, and this explains the scarcity of research studies in the field. Hall (2019) discusses the anti-bias education framework for teachers, which consists of six fundamental principles to assist young students in understanding social justice. The principles are: 1) enabling action within learners' communities; 2) integrating students' prior knowledge, interests, and cultural resources into teaching; 3) equipping them with the skills needed to bridge any gaps; 4) working effectively with families and communities; 5) diversifying forms of assessment to suit differences; and 6) addressing injustice and power within activities as explicit parts of the curriculum (Hall, 2019). In addition, childhood educators must embrace situations demonstrating anti-bias actions, taking controversial knowledge through developing critical awareness and positive reinforcement of children's identities (Allehyani, 2022a, 2022b; Nguyen, 2022).

Contemporary research emphasises the vital role of Saudi pre-school teachers in raising children's awareness of the importance of empathy, kindness and respect for others, regardless of their cultural backgrounds (Allehyani, 2022a). The results showed that female teachers in international schools with more experience teaching students from diverse cultural backgrounds were more culturally and linguistically competent than others in public and private schools. Despite these noteworthy findings by Allehyani (2022a), Hall (2019), and Nguyen (2022), the issue of anti-bias was not discussed in terms of teaching practices in ECE. To bridge the gap in the literature, we intended to dig deeply into pre-school teachers' anti-bias education in Saudi Arabia, which has become a modern educational trend focusing on integrating and respecting individuals' differences.

Anti-bias teaching practices

Educators should employ clear teaching strategies to link contemporary events to their historical precedents and the social and economic impacts of racial discrimination (Escayg, 2018). A prior study found that teachers helping students develop a critical view of the world and applying an anti-bias framework to identify grievances in the arguments felt powerful when engaging in difficult

conversations (Hall, 2019). Thus, using various anti-bias strategies in the classroom is fundamental to achieving a bias-free environment. MacNaughton's work (1999–2005) has had a strong influence on the persona dolls approach (PDA) in serious anti-repression in both the United Kingdom (UK) and South Africa (Bozalek & Smith, 2010). McNaughton concludes that through the stories and conversations that young children initiate with adults, PDA can shed light on the diverse and complex understandings they gain from their social world (Bozalek & Smith, 2010).

Earlier studies found that applying teaching strategies through storytelling prompts, such as personal dolls, yields effective learning outcomes to combat bias, engage children as agents of change, achieve environmental sustainability, and communicate effectively with others (Domingues, 2019; Kissinger, 2017). Similarly, dolls approach (DA) is an enjoyable and beneficial way for adults to work with children and families to construct and promote anti-bias practices (Smith, 2013). More precisely, PDA represents a set of various aspects, including family structures, favourite foods, heritage customs, religious background or disability. This helps children understand equality and impartiality (Dash & Peters, 2021). Recently, Allehyani (2022a) found that using cultural resources such as PDA was a practical approach to creating a culturally responsive environment for pre-schools in Saudi Arabia. New findings from Kok and Yang's (2022) research indicated that anti-bias pre-school curricula reflect authentic, active and developmentally appropriate representations of children's engagement in play-based experiences, purposefully constructing children's mindsets through perspective-taking and reasoning.

Another anti-bias approach relates to gender balance, which was more prominent than race bias (Farago, 2017). A recent study acknowledges the existence of symptoms of gender-stereotyped behaviour and anti-bias in ECE (Agustin, Djoehaeni & Gustiana, 2020). Behavioural symptoms in children that are not dealt with when they appear will have a significant negative impact, including the possibility of the children turning to violence (Agustin et al., 2020). Educators also revealed using the diversity board strategy stimulated children's discussion (Farago, 2017). To achieve sustainability in education, various social and cultural learning methods must be implemented to provide better conditions for all children (Domingues, 2019, 2021; Kissinger, 2017). Furthermore, the Logan doll is an innovative educational tool showing children how to combat prejudice using reusable materials, as well as being a doll character with a queer identity, which helps promote gender literacy, dismantle gender binaries, and educate for gender justice (Domingues, 2021). Research on integrating the strategies of persona and Logan dolls as a vital part of educators'

practices has found that it assists children in disrupting bias through identity activities (Allehyani, 2022a; Domingues, 2021).

Another approach to anti-bias practices is role-play, which is employed across the range of activities in the curriculum to simplify communication and understanding between learners and the teacher. Role-play has achieved positive results in changing students' attitudes toward bias. It is more effective in managing this type of thorny issue among school-age children (Kimura, Antón-Oldenburg & Pinderhughes, 2022; Richter, 2014; Tsergas, Kalouri & Fragkos, 2021). This is because it encourages the practice of critical thinking methods and sets personal health boundaries with others rationally rather than simply being a communication process. The results by Kimura et al. (2022) indicate that age-appropriate teaching approaches to anti-bias issues are vital for educating young children at kindergarten and first grade levels. These repetitive pedagogical practices promote emerging anti-bias attitudes through role-play, which is critical in correcting children's perceptions of others (Kimura et al., 2022). It is crucial in anti-bias learning environments to promote the value of diversity, whether in role-play or book texts, and to ensure that they reflect the child's appearance, experiences and family and include people with diverse characteristics and lifestyles (Richter, 2014).

It is essential to engage young students in anti-racist learning, as is accompanying it with thinking and continuous reflection on their own biases, civil rights, and tendencies, and the discomfort these can cause in others as the result of actions (Summer, 2014). Results reveal that students who engaged during reading lessons could produce verbal responses to condemn injustice in reading texts. However, they did not propose an explanation for changing the discriminatory systems' bias rules (Nguyen, 2022). In such cases, EC educators must inculcate anti-bias practices by teaching children how bias affects them and the lives of others within the broader scope of institutions (Allehyani, 2022b; Husband, 2012). This would enhance children's sense of self-worth, harmony and cohesion with the group. Anti-bias work requires preparing sensitive teachers who reflect on themselves and their actions and structure their teaching and practices to respect and accept others (Aldegether, 2020; Breese, Nickerson, Lemke, Mohr, Heidelburg, Fredrick & Allen, 2023; Richter, 2014). Breese et al.'s (2023) result highlights the importance of increasing pre-service teacher's awareness of anti-bias by meeting their professional training needs for culturally and linguistically responsive competencies.

With this research we intended to shed light on the extent to which pre-school teachers, whether in the government, private or international sectors, apply anti-bias education in the curricula, thereby

providing equal learning opportunities for all children in those centres in Saudi Arabia. Within this scope, our study can be considered a critical and significant piece of research due to the lack of previous studies in the Saudi literature dealing with this subject matter. With this aim, two main research questions have guided this investigation:

1) How do pre-school teachers integrate the concept of anti-bias into classroom practices?
2) Is there any correlation between teaching anti-bias experiences to children and types of pre-schools?

Methodology

A quantitative research design was chosen for its suitability. We used a self-administered questionnaire to investigate teachers' practices and approaches for teaching pre-schoolers the principle of anti-bias. The questionnaire covered three main approaches: pictures, books, role-play with games, tools and materials. More details regarding the questionnaire design are discussed in the instrument section.

Data Collection and Ethical Issues

Before conducting the study in pre-school settings, we applied to the Department of EC for permission. The methodology includes a questionnaire, and study questions were sent to the ethics committees in Arabic (the local community's mother tongue) and English to be evaluated and checked ethically. Suggested changes were made in the final version of the methodology. After receiving the final approval, we started the data collection process. The pre-school teachers were informed of the research objectives and signed participation and consent forms. They were told that their personal information would remain confidential and be used only for the purposes of this study. It was agreed that pre-school teachers' participation would be voluntary.

Participants

The distribution of the sample of pre-school teachers ($n = 142$) was by pre-school type in the cities of Jeddah and Riyadh in Saudi Arabia. Participants were selected randomly from different pre-schools. The distribution of the total number of pre-school teachers according to school types was public (42.25%), international (16.9%) and private (40.85%).

Instrument

In this field study we used a self-administered questionnaire to collect data from the participants. The instrument was developed in light of theoretical research results related to previous studies and scientific literature in this field. We checked the instrument's psychometric features and validity and reliability coefficients. The first part of the questionnaire explores the teachers' demographic information, which includes teaching experiences and pre-school types. The second part of the questionnaire investigates teachers' approaches and practices to teaching anti-bias in the classroom. This section was built on a 3-point Likert scale (1 = always, 2 = sometimes, 3 = never). Our choice of applying this scale is less discriminating regarding participants' emotional responses and averaging across several items.

Data Analyses

The analyses of the items of the questionnaire were conducted using the Statistical Package for Social Science (SPSS v. 26). The overall results obtained from the statistical analysis confirmed the items in the questionnaire assisted us in identifying the levels targeted accurately. Table 1 shows the validity of the questionnaire, which was calculated through internal consistency by testing the correlation coefficient (Pearson correlation coefficient) between the total scores of the items. The total score of the questionnaire analyses is displayed in Table 1. As shown in Table 1, all correlation coefficients were significant (Sig) at the *p*-values (**$p = < 0.01$), indicating the items' validity and homogeneity.

Table 1 Pearson correlation coefficient value

Number (No)	Correlations	Sig	No	Correlations	Sig	No	Correlations	Sig	No	Correlations	Sig
1	0.944**	0.01	12	0.831**	0.01	20	0.784**	0.01	28	0.911**	0.01
2	0.784**	0.01	13	0.931**	0.01	21	0.859**	0.01	29	0.817**	0.01
3	0.930**	0.01	14	0.845**	0.01	22	0.944**	0.01	30	0.944**	0.01
4	0.827**	0.01	15	0.911**	0.01	23	0.761**	0.01	31	0.805**	0.01
5	0.886**	0.01	16	0.940**	0.01	24	0.817**	0.01	32	0.930**	0.01
6	0.921**	0.01	17	0.871**	0.01	25	0.876**	0.01	33	0.822**	0.01
7	0.845**	0.01	18	0.874**	0.01	26	0.887**	0.01	34	0.817**	0.01
8	0.887**	0.01	19	0.782**	0.01	27	0.845**	0.01	35	0.876**	0.01
9	0.930**	0.01							36	0.659**	0.01
10	0.871**	0.01							37	0.809**	0.01
11	0.944**	0.01							38	0.767**	0.01

Note. $*p < 0.05$, $**p = < 0.01$.

Table 2 represents the instrument's reliability and indicates the measurement's accuracy. To assess reliability, we used the following techniques: 1) Cronbach's alpha coefficient and 2) split-half method. The results reveal that all the values of the reliability coefficients, the alpha coefficient and split-half coefficients are significant at the 0.01 level, indicating the consistency of the questionnaire.

Table 2 Reliability coefficients

Reliability	Cronbach's alpha	Split-half	
		Spearman-Brown coefficient	Guttman split-half coefficient
Items	0.862	0.973	0.953

Primarily, (N) indicates the number of responses and totals (3). Table 3 displays the level and teachers' extent of agreement of the items for each response. The level low was from 1 to (1 + 0.66), which is approximately 1.66. The average level was from 1.67 to (1.67 + 0.66), around 2.33. The high level ranged from 2.34 to (2.34 + 0.66), approximately 3.

The teachers' demographic information in the first part of the questionnaire has two variables (teaching experience and school types). Teachers were asked whether they had previous experience teaching children from a culture different from their own, and more than two-thirds of the teachers responded positively ($n = 96$; 67.6%). This result confirms that most teachers had experience in teaching children from a culture different from their own. However, the remaining third, approximately ($n = 46$; 32.4%), responded negatively.

As revealed in Table 3, there are statistically significant differences between the pre-school teachers' responses due to the variable of pre-school type. The values of the difference between the averages for teachers from international, private, and government schools were ($M = 27.45833$) and ($M = 22.03879$) concerning the category of teachers in private schools.

The value of the difference between the means for private and government schools was ($M = 5.41954*$). All the statistically significant values are at the 05.0 significance level.

Table 3 Scheffe post-hoc test for multiple comparisons of the variable of pre-school type

	Public	Private	International
Pre-school type	$M = 65.1667$	$M = 70.586$	$M = 92.625$
Public	———	5.41954*	27.45833*
Private		———	22.03879*
International			———

Note. *Sig at 0.05 level.

The analysis revealed a direct correlation between the type of school and the application of the concept of impartiality in preparing the classroom environment at the 0.01 significance level. Accordingly, the more teachers work in international schools, the greater the application of the concept of anti-bias in preparing the classroom environment.

Results

Multiple analyses relating to pre-school teachers' integration of the concept of anti-bias into classroom practices were conducted to answer the first research question. With the first phase of the investigation we intended to analyse teaching approaches, which consist of pictures, books and role-play with games, tools and materials. With the second phase of the analysis we aimed to evaluate pre-school teachers' practices toward teaching children anti-bias education. The initial analyses revealed a difference in the average percentages of teachers applying differing approaches to educate children about anti-bias in the classroom (see Table 4). The analysis showed that teachers used role-play as the most commonly employed approach to educate children about anti-bias with a high mean value of ($M = 25.42$; $SD = 3.65$). Results indicate that the mean value level of the dimension of "games, tools and materials" was ($M = 16.22$; $SD = 3.52$), with a medium percentage. Similarly, the "books" dimension showed a medium average percentage with the mean score of the teachers' responses ($M = 13.71$; $SD = 3.25$). However, the analysis of the dimension of "pictures" showed a lower mean score of the teachers' average responses among all dimensions ($M = 16.68$; $SD = 4.60$).

Table 4 Percentages of response scores on each variable and total scores

Variables	N	M	SD	%
Pictures	11	16.68	4.60	50.53
Books	8	13.71	3.35	57.13
Games, tools & materials	8	16.22	3.52	67.58
Role-play	11	25.42	3.65	77.02
Total	38	72.03	15.12	63.18

As shown in Table 5, the level of the mean value of pre-school teachers' responses from public, private, and international schools concerning the first dimension, "pictures", had a low level of mean

value of (*M* = 1.516). As for the responses of the sample to the dimension items, the means of these items ranged over (1.1048–2.5141) degrees out of 3 degrees. The *SD* values were (0.349–0.759).

As presented in Table 5, most pre-school teachers stated that they used pictures accurately reflecting the daily life of families in the community, for example, images of different family leisure activities, with an average of high mean values of (*M* = 2.5141, *SD* = 0.502). Teachers affirmed that they used pictures critically reflecting the different types of families in society, for example, families with mixed cultures or races, adopted children and with disabilities, with a mean value of (*M* = 1.7817, *SD* = 0.632).

Table 5 Frequencies, percentages and mathematical means of the dimension of pictures

Item		Responses			*M*	*SD*
		Always	Sometimes	Never		
The pictures in the class represent different cultures, races, genders, languages & colours.	Count %	15 10.6%	38 26.8%	89 62.7%	1.4789	0.681
There is a balance in the number of pictures representing each group.	Count %	16 11.3%	35 24.6%	91 64.1%	1.4718	0.691
Pictures represent society's most prominent groups of different cultures and races.	Count %	12 8.5%	35 24.6%	95 66.9%	1.4155	0.644
The pictures accurately reflect the daily life of families in the community.	Count %	73 51.4%	69 48.6%	0 0%	2.5141	0.502
There is a balance between pictures of men and women showing them while performing family tasks at home.	Count %	26 18.3%	49 34.5%	67 47.2%	1.7113	0.759
There are pictures of old people from different backgrounds doing different activities.	Count %	0 0%	20 14.1%	122 85.9%	1.1408	0.349
There are pictures of people with disabilities showing them independently and not dependent on others.	Count %	0 0%	29 20.4%	113 79.6%	1.2042	0.405
There are pictures of people with disabilities from different backgrounds.	Count %	0 0%	27 19.0%	115 81.0%	1.1901	0.394
Pictures reflect the different types of families in society.	Count %	16 11.3%	79 55.6%	47 33.1%	1.7817	0.632
Pictures reflect differences in gender, race, culture, body and mental abilities.	Count %	5 3.5%	47 33.1%	90 63.4%	1.4014	0.559
Pictures of prominent people who fought for social justice.	Count %	3 2.1%	46 32.4%	93 65.5%	1.3662	0.526
Total					1.516	

Further analysis revealed that teachers presented a balance between pictures of men and women showing them performing family tasks at home, with a mean value of (*M* = 1.7113; *SD* = 0.759). For example, teachers used pictures portraying an equal partnership of a father and mother at home, taking care of children and doing housework. Teachers agreed that they used pictures of people with disabilities from different backgrounds, with a low mean value of (*M* = 1.1901; *SD* = 0.394).

As demonstrated in Table 6, the total score of the mean value of teachers' responses in public, private, and international pre-schools in terms of the dimension of books was (1.714) degrees out of 3. As for teachers' responses in all the items, this ranged over (1.2254–2.2113) degrees out of 3. Subsequent analysis showed that the mean value of teachers always reading children's books representing the most important holidays and national festivals celebrated by children and their families was (*M* = 2.2113; *SD* = 0.593).

Table 6 Frequencies, percentages, arithmetic means of children's books

| Item | | Responses | | | | |
Children's books:		Always	Sometimes	Never	*M*	*SD*
Reflect different gender roles.	Count	52	55	35	2.1197	0.776
	%	36.6%	38.7%	24.6%		
Reflect different cultural and ethnic backgrounds.	Count	49	57	36	2.0915	0.771
	%	34.5%	40.1%	25.4%		
Deal with different types of family structures.	Count	25	66	51	1.8169	0.711
	%	17.6%	46.5%	35.9%		
Deal with families of different economic levels.	Count	0	32	110	1.2254	0.419
	%	0%	22.5%	77.5%		
Display characters with different abilities or disabilities.	Count	1	36	105	1.2676	0.460
	%	.7%	25.4%	73.9%		
Display different groups correctly and accurately as they perform their daily lives.	Count	0	45	97	1.3169	0.467
	%	0%	31.7%	68.3%		
Are available in a language other than Arabic.	Count	32	30	80	1.662	0.824
	%	22.5%	21.1%	56.3%		
Display the most important national festivals celebrated by children and their families.	Count	43	86	13	2.2113	0.593
	%	30.3%	60.6%	9.2%		
Total					1.714	

Teachers indicated that they always read books with children reflecting the different roles of genders ($M = 2.1197$; $SD = 0.776$). Interestingly, teachers reported they do not often read children's books dealing with families of different economic levels, with a low mean value of ($M = 1.2254$; $SD = 0.419$). Surprisingly, children's books display characters with different abilities and disabilities were reported to be rarely used by teachers, with a mean of ($M = 1.2676$; $SD = 0.460$). This indicates teachers seem to focus mainly on some aspect of an anti-bias subject; however, it negated the discussion about people with disabilities, which needs to be emphasised in teaching children.

Subsequent analysis of pre-school teachers' responses on the total third dimension of role-playing with toys, games, devices and materials ($M = 2.027$) degrees out of 3 (see Table 7). Analyses revealed most teachers ($M = 2.8451$; $SD = 0.363$)

agreed on the importance of role-playing in the dramatic imagination play area. They fully equipped this area with diverse role-playing tools and resources suitable for both genders, for instance, tools for working indoors and outdoors, rooms in the house other than the kitchen, and various female and male role-playing costumes. More importantly, results reflected teachers' practices related to the anti-bias teaching approach in the dramatic imagination play corner. They provide children with various personal instruments, such as persona dolls representing different groups, with a mean value of ($M = 2.4648$; $SD = 0.805$). Unexpectedly, subsequent analysis showed teachers agreed they rarely set proper facilities for children with physical, visual and auditory disabilities to play the dramatic imagination play corner, which had a low mean value of ($M = 1.2958$; $SD = 0.488$).

Table 7 Frequencies and percentages of role-playing with games, tools and materials

Item		Responses			*M*	*SD*
In the dramatic imagination play area, there are:		Always	Sometimes	Never		
Role-playing tools suitable for both genders (males and females).	Count	120	22	0	2.8451	0.363
	%	84.5%	15.5%	0%		
Mirrors that reflect the children's emotional actions.	Count	29	75	38	1.9366	0.686
	%	20.4%	52.8%	26.8%		
Play facilities for children with physical, visual and hearing disabilities.	Count	2	38	102	1.2958	0.488
	%	1.4%	26.8%	71.8%		
Varieties of personal instruments, such as persona dolls with different skin tones, represent different groups.	Count	94	20	28	2.4648	0.805
	%	66.2%	14.1%	19.7%		
Different types of musical instruments from different cultures.	Count	79	26	37	2.2958	0.857
	%	55.6%	18.3%	26.1%		
Various clothes that represent different cultures.	Count	81	19	42	2.2746	0.892
	%	57.0%	13.4%	29.6%		
Different imaginary food dishes from diverse backgrounds, cultures and ethnicities.	Count	24	32	86	1.5634	0.767
	%	16.9%	22.5%	60.6%		
Different songs representing the heritage of different groups.	Count	19	39	84	1.5423	0.721
	%	13.4%	27.5%	59.2%		
Total					2.027	

The second analysis phase evaluated teachers' practices. According to Table 8, the mean value of teachers' practices was (2.3105) degrees out of 3, which is an average value. Most teachers indicated they always help and cooperate with boys and girls equally, with a mean of ($M = 2.8662$; $SD = 0.342$), which is a high degree of agreement. Teachers' responding to aggressive behaviour in the same way regardless of the child's gender, race, culture or disability was a widespread practice toward anti-bias actions, which had a high mean of ($M = 2.993$, $SD = 0.084$).

Table 8 Frequencies, percentages, means and standard deviations of teachers' practices

Item		Always	Sometimes	Never	*M*	*SD*
			Response			
The teacher notices and responds to nonverbal cues and verbal expressions equally and at the same speed for girls and boys.	Count %	71 50.0%	71 50.0%	0 0%	2.5	0.502
The teacher responds to nonverbal cues and verbal expressions of children with disabilities.	Count %	21 14.8%	88 62.0%	33 23.2%	1.9155	0.613
The teacher responds to children's nonverbal cues and verbal expressions regarding colour.	Count %	58 40.8%	84 59.2%	0 0%	2.4085	0.493
The teacher gives boys and girls equal opportunities to play in psychomotor activities and outdoor playground equipment.	Count %	68 47.9%	74 52.1%	0 0%	2.4789	0.501
The teacher gives boys and girls the same freedom to express their feelings.	Count %	82 57.7%	60 42.3%	0 0%	2.5775	0.496
The teacher helps and cooperates with both boys and girls equally.	Count %	123 86.6%	19 13.4%	0 0%	2.8662	0.342
The teacher responds to aggressive behaviour similarly regardless of the child's gender, race, culture or disability.	Count %	141 99.3%	1 .7%	0 0%	2.993	0.084
The teacher creates opportunities for children with limited physical or mental abilities to interact positively and independently with the curriculum subjects and other children.	Count %	12 8.5%	27 19.0%	103 72.5%	1.3592	0.634
The teacher supports all children equally.	Count %	128 90.1%	14 9.9%	0 0%	2.9014	0.299
If there are children who use languages other than Arabic, the teacher tries to learn their languages and use some of their vocabulary.	Count %	38 26.8%	27 19.0%	77 54.2%	1.7254	0.860
The teacher uses gestures, body language, movement encouragement and various visual aids with children with mental disabilities or limited language abilities.	Count %	25 17.6%	48 33.8%	69 48.6%	1.6901	0.755
Total					2.3105	

Teachers informed us that they infrequently created opportunities for children with limited physical or mental abilities to interact positively and independently with the curriculum subjects and other children, with a mean of (*M* = 1.3592; *SD* = 0.634). Overall, results related to children from special groups regarding their inclusion in anti-bias education are still ambiguous, whether in terms of educational sources or teaching methods. These results call for further verification to identify why teachers neglect this subject.

To answer the second research question, the correlation matrix test was applied to determine the correlation between the variables of teaching experiences and pre-school types (see Table 9). The analysis of the results showed a negative correlation between the teachers' experiences of applying the concept of anti-bias and the pre-school types at the significance level of 0.01.

Table 9 Correlation matrix between variables

Variables	The correlation between teaching experiences of the concept of anti-bias and pre-school types	Sig
Pre-school types	0.659*	0.01
Teaching experiences	−0.666*	0.01

Note. *Significant at 0.01.

Significantly, the more the teachers had previous experience teaching children from a culture different to their own, the more they applied the concept of anti-bias to classroom practices. Further analyses confirmed pre-school types showed no significant correlation with the study variables.

Discussion and Conclusion
With this investigation we aimed to shed light on teachers' anti-bias practices with pre-school

children in the Saudi context to promote respect for the differences of others. Critical theory was applied to this study to reflect the teachers' practices and approaches toward the discourses of bias. Applying our theory into practice, pre-school teachers used different approaches to educate children about thinking and reflecting critically on discourses related to bias-related issues. The overall results from our study agreed with those by Gu, Li, Yi, Yang, Liu and Wang (2023) on the importance of implementing effective pedagogies of anti-bias principles that must be mirrored in every EC classroom to free adults, children and future generations from bias. Our study yielded several significant findings based on the critical theory that framed our research. Pre-school teachers' reflective practices were demonstrated very clearly in selecting books and pictures portraying children with anti-biased attitudes. Our research revealed that teachers with more previous experience in teaching children from a culture different from their own were more determined to apply the concept of anti-bias to classroom practices. These results confirm earlier findings that teaching strategies towards cross-cultural anti-bias education provide children with increased skills in respecting the identity of others, thinking critically about different perspectives, and applying equity in providing diverse opportunities for all children (Allehyani, 2022a; Escayg, 2018). Consequently, weaving the concept of anti-bias into schools' practices initiates critical reflection as a team, which leads to effective and sustainable learning outcomes.

In addition, pre-school teachers intended to apply three main approaches of anti-bias practices that guided our investigation. The first anti-bias practice relates to pictures as a teaching tool in pre-school classroom activities. Interestingly, pre-school teachers in our study were shown to encourage children to break the cycle of gender stereotypes by critically analysing gendered pictures of parents performing balanced and cooperative family tasks at home outside the traditional framework of social gender roles. These new practices affirm the value of pictures as an anti-bias approach in pre-school learning. Teachers use role-play in the imaginative and dramatic play corner as a more joyful way of teaching children the concept of anti-bias. More importantly, our findings confirm that teachers were using role-play as the preferred approach to educating children about the idea of anti-bias of its various types in a play-based environment. This result agrees with previous findings that role-play is one of the most popular and effective ways to reflect children's critical perspectives and embed anti-bias thoughts and practices in pre-schoolers (Kimura et al., 2022; Richter, 2014; Tsergas et al., 2021). We discovered that teachers were keen to provide children with age-

appropriate and fruitful learning resources such as persona dolls with different skin tones, diverse cultural clothes, plastic foods representing different cultures and musical instruments. These provisions celebrate diversity as the core of anti-bias practices and create discourse on special needs, bias and disabilities. This finding confirms previous results that using cultural resources within the teaching context is the most effective way to enhance the concepts of anti-bias and equity in children (Allehyani, 2022a; Bozalek & Smith, 2010; Dash & Peters, 2021; Smith, 2013).

Culturally diverse children's books were also used as one of the main sources of educating pre-school children about anti-bias. These books include the most important holidays and festivals celebrated by children and their families, heritage foods and clothes supporting the principle of anti-bias and children's awareness of respecting other identities. This agrees with previous findings that when teachers read children's books about gender or race topics, students are more eager during reading lessons to produce verbal responses to texts criticising perceptions and attitudes of bias (Allehyani, 2022a; Nguyen, 2022). These findings are consistent with previous findings emphasising the importance of teachers' roles when reading books with children in raising children's awareness of racial attitudes and continually working to change longstanding stereotypes by enabling children to think critically (Agustin et al., 2020; Allehyani, 2022a; Husband, 2012). Surprisingly, the teachers showed limited use of books reflecting people with different disabilities. Future research should examine the reasons for the under-representation of people with disabilities in books selected by EC teachers in Saudi Arabia.

While the type of pre-school did not result in differences in teachers' anti-bias approaches, we acknowledge the effect of differences in teachers' experiences toward culturally diverse children and their ability to reflect equity, harmony and respect for the identities of children and their families. Our study emphasises the importance of being more open to anti-bias education and eliminating blind perspectives toward others' differences. According to Hall (2019), adopting anti-bias approaches can shape children's minds to become fairer in their views and develop the skill of critical thinking regarding their judgements. Despite the exceptional findings of this study, pre-school teachers still have implicit biases toward providing teaching methods that encourage talking about people with special needs, which may affect children's future attitudes and behaviour towards this particularly vulnerable group. Our study results contribute valuable and new knowledge that can be added to the existing literature, as it is the first study explicitly addressing this issue in Saudi ECE.

Future Implications and Limitations

There is a need to empower diverse groups of teachers by encouraging sustainable practices promoting the anti-bias movement in ECE. To effect change, EC settings must take a progressive, inclusive stance on issues of acceptance and belonging to counter deeply rooted philosophies about social justice (Calais & Green, 2021). Adopting a critical reflection approach to learning content in books, pictures, games and devices is significant in achieving equity in early education. Regarding the anti-bias gap, the education system cannot fix what it has failed to acknowledge without burdening teachers to address this issue. There must be concerted efforts between educational policymakers, leaders, parents, and the community to encourage teachers to perform their responsibilities and support the ambitious vision of their role as civil actors capable of rejecting racist content presented in all its forms, whether printed or digital.

Despite the significant results of our study about promoting anti-bias learning classroom environments for young children in daily practices in Saudi Arabia, we acknowledge some limitations. The first limitation is that the results are restricted to a few teaching approaches, such as role-play, pictures, books, games and material. Inclusive learning environment assessment needs to be addressed regarding educators' attitudes, including leaders. Although most teachers had previous experience teaching children from different cultures, the study sample was limited to two main cities, so the results cannot be generalised. Consequently, expanding the geographical range for further research on anti-bias education is recommended. Another limitation is the small number of study samples. In investigating individuals' anti-bias attitudes, a larger population would add more value to the results. Finally, we used a questionnaire to collect data. Even though it yielded vital knowledge related to this matter, researchers are advised to use other methods, such as observation and interviews, to obtain more detailed results.

Authors' Contributions

S.H.A. – conceptualization, methodology, writing and responding to the reviewers' comments. S.A.A. – editing, data analyses and curation, and formal analysis. Both authors have read and agreed to the published version of the manuscript.

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