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<sup>1</sup>Wolf, Katrin M.; <sup>2</sup>Broekhuizen, Martine Louise; <sup>3</sup>Moser, Thomas; <sup>4</sup>Ereky-Stevens, Katharina; <sup>1</sup>Anders, Yvonne

<sup>1</sup>Freie Universität Berlin, Germany <sup>2</sup>Utrecht University, The Netherlands <sup>3</sup>University of South-Eastern Norway, Norway <sup>4</sup>University of Oxford, United Kingdom

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# Determinants of Early Attendance of ECEC for Families with a Turkish Migration Background in four European Countries

Katrin M. Wolf<sup>a</sup>\*, Martine L. Broekhuizen<sup>b</sup>, Thomas Moser<sup>c</sup>, Katharina Ereky-Stevens<sup>d</sup> and Yvonne Anders<sup>a</sup>

<sup>a</sup>FreieUniversität Berlin, Germany; <sup>b</sup>Utrecht University, The Netherlands; <sup>c</sup>University of South-Eastern Norway, Norway, <sup>d</sup>University of Oxford, United Kingdom

\*correspondingauthor:

Katrin M. Wolf

Freie Universität Berlin

Fachbereich Erziehungswissenschaft und Psychologie

Arbeitsbereich Frühkindliche Bildung und Erziehung

Habelschwerdter Allee 45

14195 Berlin

katrin.wolf@fu-berlin.de

Provide short biographical notes on all contributors here if the journal requires them.

# Determinants of Early Attendanceof ECEC for Families with a Turkish Migration Background in four European Countries

Research has demonstrated educational inequalities for children with Turkish immigration background. Because of the great potential of Early Childhood Education and Care (ECEC) for decreasing educational disparities, we examined associations between family characteristics (structural characteristics and acculturation attitudes) and early ECEC attendance (under the age of two) for families with a Turkish immigration background in four European countries (England, Germany The Netherlands, England – N=943), using data from a standardized survey. Group-wise logistic regressions revealed differences among the predicting factors across countries. Nevertheless, factors, which related to family socio-economic background, were found to be associated with early ECEC attendance across all countries: higher levels of maternal education (England, Germany, Netherlands), maternal employment (Norway), and more material deprivation (England) significantly predicted early ECEC use. In addition to these SES associations, factors related to socio-cultural adoption were associated with early ECEC use in three (out of four) countries. The findings can be partly related to country-specific ECEC characteristics.

Keywords: international comparative study, accessibility and use of early childhood education and care (ECEC), educational opportunities, acculturation strategies, families with Turkish immigration background

# Introduction

High quality early childhood provision can buffer children from disadvantaged families against educational inequalities (Vandenbroeck, & Lazzari, 2013). Attendance of early education and care supports maternal employment (thus helping to lift families out of poverty), and good quality childcare and education offers children opportunities for learning and development – both contributing to narrowing achievement gaps. Recent years have seen policy efforts in many European countries to increase accessibility and use of early childhood education and care (ECEC)<sup>1</sup> for young children. Despite these efforts, variations in access and attendance are commonly observed across regions and populations, affecting particularly the more disadvantaged (OECD, 2006). To better understand which factors may work as facilitators or barriers to use of early ECEC, research tries to identify determinants of variation in attendance. In this study, we focus on children with Turkish immigration background living in several European countries, because for this group bigger educational attainment gaps have been shown across some countries in Europe (e.g., Strand et al. 2010). We examine if and how individual family characteristics (including family socio-economic status, and variables measuring adaption and beliefs on acculturation) relate to early attendance of ECEC.

In high income countries in Europe, the majority of children above age three use early education; rates however are significantly lower in the younger group and for children from low SES families, and there is also evidence on lower rates for children with immigrant background (European Commission/EACEA/Eurydice/Eurostat 2014; OECD 2014). However, evidence on immigration status on ECEC attendance is

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<sup>&</sup>lt;sup>1</sup> In this paper, ECEC only refers to centre-based childcare, not to non-familiar home-based childcare.

somewhat mixed. It has been argued that patterns of differences in ECEC attendance for children with immigrant background depend on the tradition and accessibility of ECEC services in each country and country efforts to include immigrant children and families, but also on parents' child-rearing beliefs, and the socio-economic situation in the host-country – e.g. the necessity and availability of employment, or the availability of informal care arrangements (SOFRECO, 2012). In addition to country differences, accessibility of ECEC might vary depending on the specific immigrant background of families. Yet, little research exists to shed light on this specificity. Nevertheless, international policy documents and reports have raised concerns on the accessibility of ECEC services for children and families with ethnic minority and/orwith other language backgrounds (European Commission 2011; OECD 2006, 2012).

Affordability, availability and admission criteria: It has been argued that issues of access to ECEC and parents' motivation to use ECEC both play an important role in accounting for low ECEC attendance in the early years (Ünver, Birkan&Nicaise 2018). Family policies affect ECEC costs (affordability), coverage of ECEC provision (availability), and inequalities in admission to ECEC – factors often described as the most important barriers to equal access in ECEC services (Petitclerc et al. 2017).

Despite considerable policy efforts across European countries to reduce ECEC costs for those families in need (Resa et al. 2016), the use of ECEC for the younger age group commonly entails monetary costs for families (OECD Family Database 2014); socioeconomic resources are therefore significant in determining ECEC access (Gambaro, Stewart &Waldvogel 2014). And while policies are increasingly put into placeto expand availability of ECEC places for children under the age of three (Resa, Ereky-Stevens, Wieduwilt, Penderi, Anders, Petrogiannis, &Melhuish 2016), reports show that coverage is still not sufficient and does not satisfy the demands of parents (BMFSFJ

201). Where families' demands for childcare surpass available ECEC places, individual childcare centres or providers often have significant autonomy in allocating places in introducing admission criteria. Where such criteria give priority to working parents, or consider the staff's workload (EuropeanCommission/EACEA/Eurydice/Eurostat 2014, BMFSFJ 2016), this can have significant implication for ECEC access for children with immigrant background where dual earner families are less common, and where children might require more pedagogical attention (e.g. for language support). Moreover, language barriers (Becker 2009) might contribute to an unequal information of available places and financial support for parents with and without immigration background. Family attitudes: Cultural differences in families' beliefs (Pungello& Kurtz-Costes 1999) might also help to explain existing evidence on differences in ECEC use, which are related to migration-related factors (Scholz, Erhard, Hahn & Harring 2019). Thoughts regarding benefits or disadvantages of maternal employment for families with young children, or a preference for family-care over formal care arrangements are important factors influencing families' decision-making. Importantly, such attitudes have been found to be related to parents' personal experiences and thus to families' cultural backgrounds (e.g., Durgel, van de Vijver&Yagmurlu 2013). Concerning experiences in our target group in particular, both maternal employment rates and ECEC attendance are still considerably lower in Turkey than in high income European countries (OECD Employment Database 2017; Ministry of National Education, 2008). This may well impact parental beliefs and values with regard to their own employment situation and childcare responsibilities. Such mechanisms may help to explain findings which show that 1st generation immigrant families have a preference for family-care for their children, whereas 2nd generation immigrant families do not differ from native families regarding the decisions on centre-based ECEC use (Lokhande 2013).

Such findings also support the common assumption that for families with immigrant background, decisions around children's up-bringing and education are related to families' levels of acculturation and their socio-cultural adaption (Durgel, Leyendecker, Yagmurlu& Harwood 2009). Acculturation processes are complex and can involve changes of attitudes, behavioural shifts and acculturative stress (Berry 1992). This process' long-term consequences depend on both individual factors (e.g., personality and experiences prior and during the acculturation process) and sociocultural factors of the origin and hosting society (Berry 1997). How people undergo acculturation depends on their acculturation strategies, which consists of two components: attitudes and behaviour (Berry, 2005). Acculturation attitudes refer to views on maintenance of heritage culture or adaption to host country's culture (Berry 1997). The behavioural dimension covers interactions with people, language and culture of the hosting society. Besides, the amount of contact with members of host country's society and the self-confidence in using the second language are interrelated and linked to the identification with the majority and heritage group (Clement, 1986; Noels, Pon& Clement, 1996). Socio-cultural adaption refers to changes of behavioural competencies, which help to fit in and interact with members of the host culture, and has been found to be influenced by factors such as the length of residence in the new society, cultural knowledge, and amount of interaction with members of the dominant society (Ward & Kennedy, 1999).

The present study aims to extend the knowledge on family predictors for early ECEC use for children with Turkish immigration background. In addition to exploring the importance of variables related to family SES, and migrant generation status, we focus on variables related to adaption processes – specifically perceived language competencies in the host language and acculturation attitudes, including beliefs about

the importance of maintaining heritage culture, adopting to the host country, and intergroup contacts (Berry 1997).

Ourstudy compares four European high-income countries with significant populations with Turkish immigrant background, and with different welfare policies and ECEC systems: England, Germany, the Netherlands and Norway. Knowledge about factors, which influence family decisions on ECEC use at an early age, helps to identify concrete measures for increasing ECEC participation for this group of children, vulnerable to educational disadvantage. By applying a country-comparative approach, findings can be analysed in relation to differences in policy-related ECEC characteristics, and linked to recommendations on ECEC policies. Countries' public ECEC provision, tax benefits for ECEC or income-related criteria for fee reductions, are considered to influence parents' decision about ECEC utilization (Petitclerc et al. 2017). Thus, table 1 describes the four countries regarding these aspects.

Table 1. ECEC systems of the four studied countries

	England	Germany	Netherlands	Norway
ECEC system for children under age 3	Choice between centre- based care that is mainly offered by private providers and non- familiar home-based childcare	centre-based care is organized by public and private providers; but parents can also choose non- familiar home-based care	Choice between centre-based care that is mainly offered by private providers and non-familiar homebased childcare	integratedsystem from one year of age to school start
Participation rates	<ul> <li>40% of all 0-2 year-olds (with 8% in non-familial home-based care)<sup>2</sup></li> <li>23.6% 2-year old non-white children benefit from state-funded ECEC<sup>3</sup></li> </ul>	<ul> <li>33.1% of all 0-2 year-olds<sup>4</sup> (with 5.1% in non-familiar home-based care)</li> <li>20.3% all 0-2 year-olds with immigration background<sup>5</sup></li> </ul>	<ul> <li>46.5% of all 0-4 year-olds in private center-based daycare<sup>67</sup> and 9.5% of all 0-4 year-olds in non-familial home-based care.</li> <li>27.2% of 0-4 year old children in representative study had a immigration background<sup>8</sup></li> </ul>	<ul> <li>83.5% of all 1-2 year-olds</li> <li>about 21.2 % of all children in Norwegian ECEC have immigrant background<sup>9</sup></li> </ul>

 ${}^2\underline{https://www.gov.uk/government/statistics/childcare-and-early-years-providers-survey-2018}$ 

https://www.gov.uk/government/statistics/education-provision-children-under-5-years-of-age-january-2018

<sup>&</sup>lt;sup>4</sup> BMFSFJ (2018). Kindertagesbetreuung Kompakt: Ausbaustand und Bedarf 2017. Berlin: BMFSFJ.

<sup>&</sup>lt;sup>5</sup> Autorengruppe Bildungsberichterstattung (2018). *Bildung in Deutschland*. Bielefeld: wbv. <sup>6</sup> https://statlline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=7461BEV&D1=0&D2=a&D3=1-27,101-105,121-123,131&D4=l&HD=110621-1139&HDR=T,G3,G1&STB=G2

<sup>7</sup>https://www.rijksoverheid.nl/documenten/publicaties/2018/12/11/cijfers-kinderopvang-derde-kwartaal-2018/https://www.monitorlkk.nl/pathtoimg.php?id=3087&image=lkk rapport meting 2018 def.pdf

<sup>&</sup>lt;sup>9</sup>https://www.ssb.no/en/utdanning/statistikker/barnehager

Availability/	huge variation between	In 2017, 45.2% of parents	no shortage	full coverage
coverage	local areas, with perceived	with a child under 3 years		
	sufficiency of places	wanted a place in ECEC.1		
	decreasing for the 2, 3 and	Hence, there was a gap		
	4 year-olds in the recent	12.1% in comparison to the		
	years <sup>10</sup>	actual coverage.		
Affordability	all countries offer some kind	d of fee reduction based on a sm	nall income – though not always nationy	vide

<sup>10</sup>Harding et al., 2017; <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/738776/Take-up\_of\_free\_early\_education\_entitlements.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/738776/Take-up\_of\_free\_early\_education\_entitlements.pdf</a>

# Methods

Participants: Data for this paper comes from a large-scale structured interview study with parents with a Turkish immigration background in four European countries (Broekhuizen, Ereky-Stevens, Wolf & Moser 2018), and was part of the EU funded Inclusive Education and Social Support to Tackle Inequalities in Society (ISOTIS) project (www.isotis.org). Overall, N = 943 parents took part ( $n_{\rm England} = 293$ ,  $n_{\rm Germany} = 338$ ,  $n_{\rm Netherlands} = 247$ ,  $n_{\rm Norway} = 65$ ). The sample consists with 92.5 % mostly of mothers. Parents were recruited if their parents were born in Turkey, and if they had a child at preschool/primary school age, who was born in the host country (and thus could have attended early ECEC in the country of data collection). The cultural background of the participants' partner was not a sampling criterion.

Procedure: The interview was conducted online-based and in case of technical issues with a paper & pencil questionnaire. The participants could decide if they wanted the interview to be carried out in the national language or in Turkish. Interviewers were mostly native Turkish speakers. The full survey took between 45 and 60 minutes. The interviewers read the questions to the parent, the parent answered and the interviewer entered the response into LimeSurvey. To enhance the response and quality of the data collection, all parents received an incentive after participating in the interview (voucher of 5-10 € or participation in a raffle). Data-collection for the interviews ran from December 2017 to July 2018.

# Measures:

Family's socioeconomic background is captured by the variables maternal employment (0=no, 1=yes) and family's material deprivation (MD)<sup>11</sup>. For MD, we used

<sup>&</sup>lt;sup>11</sup>See Broekhuizen, Ereky-Stevens, Wolf, &Moser 2018, 27f

the European Union's scale that has been thoroughly psychometrically evaluated (Guio, et al. 2016). The MD scale consists of 13 items (e.g., "Could you tell me if you can replace worn-out clothes by some new (not second-hand) ones?"). Each affirmed item adds one point to the MD indicator (range 0-13). *Maternal educational background* was coded dichotomously into low versus medium/high levels (0=ISCED lvl 0-2, 1=ISCED lvl 3-7). Parents' *migration generation status* was coded dichotomously (0=1st generation, 1=2nd or 3rd generation).

Participant's acculturation attitudes<sup>12</sup> were assessed in asking parents two questions each, on beliefs related to cultural maintenance ("I think it would be good if members of my group speak our original language often"; "I think it would be good if members of my group kept as much as possible our culture of origin and way of living"), and beliefs related to cultural adoption ("I think it would be good if members of my group speak [national language] often"; "I think it would be good if members of my group take on as much as possible of the [nationality] culture and way of living"). Regarding acculturation behaviour, we assessed the desire for inter-cultural contact ("It is important to me that members of my group have [nationality] friends"; "It is important to me that members of my group spend some of their spare time with [nationality] people"). All items were rated from 1 – disagree to 5 – agree. Participant's perceived language competencies in the national language<sup>13</sup>, as another indicator of acculturation behaviour, were measured by three questions, each one on reading

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<sup>&</sup>lt;sup>12</sup>See Broekhuizen, Ereky-Stevens, Wolf, & Moser 2018, 64. Cultural maintenance and cultural adoption items are by Zagefka et al. (2014); items for desire for contact by Zagefka, González & Brown (2011)

<sup>&</sup>lt;sup>13</sup>See Broekhuizen, Ereky-Stevens, Wolf, & Moser 2018, 44.

comprehension, listening comprehension and conversation skills (e.g., "When reading newspapers, do you have difficulty to understand the [national] language?"; recoded). We used the scale mean ranging from 1 to 6 with higher values indicating better skills.

The outcome variable is the dummy "centre-based ECEC use in first two years of life" (0=no, 1=yes). We conducted multi-group logistic regressions in MPlus for each country and for the whole sample. Missing data ranged from 0.0% to 3.4% for the variables included in our analyses. Little's test of Missing Completely at Random (MCAR) revealed that missing values were randomly distributed across all observations ( $\chi^2 = 26.64$ , df = 34, p = .81).

# **Results**

Table 2 provides an overview of descriptive statistics of the sample per country. The German and Dutch sample were quite similar regarding maternal education and participants' migration status. The English sample mainly consisted of 1<sup>st</sup> generation parents with an equal distribution on low, medium and high maternal education level. In Norway, there were also many 1<sup>st</sup> generation parents; a lower proportion of mothers had low educational levels, and a higher proportion of mothers is in employment.Parental reports on use of early ECEC varied significantly across the four countries: numbers indicated that attendance rates were highest in Norway (54.4%), followed by England and Germany (38.3 and 35.4% respectively), and lowest in the Netherlands (12.2%).

Table 2. Descriptive statistics per country (M/SD or frequency in %)

	England	Germany	Netherlands	Norway	
ECEC usage in first	38.3%	35.4%	12.2%	54.5%	
two years  Currently living					
with partner	84.5%	89.3%	85.6&	81.8%	
Material	1.62/2.26	1.44/1.79	1.64/2.14	0.69/1.50	
deprivation	7.0 <b>2</b> /2.20	211.17.217.9	110 0/211	0.03/1.50	
1st generation	93.5%	57.9&	52.0%	66.7%	
immigrants	24.70/	41.50/	21.00/	CO 004	
Employed mother	34.7%	41.5%	31.9%	60.0%	
Maternal education					
Low (ISCED 0-2)	28.2%	36.3%	38.9%	9.1%	
Medium (ISCED	33.6%	40.2%	41.9%	50.9%	
3-5)	33.070	10.270	11.570	30.9%	
High	31.4%	21.0%	19.2%	34.5%	
(ISCED >5)					

The results of the logistic regression analyses are displayed in table 3<sup>14</sup>.

# Prediction of early ECEC usage by structural family characteristics

Findings confirmed the relevance of SES factors in explaining differences in early ECEC use. Yet, with regards to the particular relevance of SES-related variables, differences were found between countries. Maternal employment was significantly related to the outcome in Germany and in Norway, but not in England nor the Netherlands. For Norway, maternal employment turned out as being the most important and only significant predictor. The maternal education correlated substantially to the early usage of ECEC in England, Germany and the Netherlands. For the studied families in the Netherlands, maternal education was the most important predictor of early ECEC usage. The migration generation was not related to the outcome in any of the four countries. Material deprivation turned out to be a significant predictor of early ECEC usage only in England. Surprisingly, we found a positive relationship between material deprivation and the early ECEC usage. The more families with Turkish immigration background in England are materially deprived, the more likely is their early usage of ECEC.

# Incremental prediction by factors related to family acculturation

In addition to structural variables, variables related to family acculturation also helped to explain differences in ECEC use. Again, different factors were found to predict the outcome in different countries. The perceived language skills in the national

<sup>&</sup>lt;sup>14</sup>Although data were missing completely at random, we reran the models by country using Full Information Maximum Likelihood (FIML) estimation as an approach to address missing data (Enders 2010). The results for these four country models (it is not possible to use FIML for multi-group logistic regression models) did not deviate from the results in table 2.

language were not important regarding early ECEC usage for families with Turkish immigration background in England and the Netherlands. However, in Germany this turned out to be strongest predictor, accounting for six percent incrementally explained variance in the outcome. For Norway, the standardized regression coefficients also referred to small effects. But due to the small sample size in Norway, this predictor was statistically not significant.

Cultural maintenance attitudes were negatively related to early ECEC usage in the Netherlands and Norway (though this predictor was not statistically significant in case of Norway because of the small sample size). Besides, cultural adoption attitudes were positively related to early ECEC usage in England.

The amount of explained variance also differed across countries. In Norway, the largest amount of variance could be explained by the predictors considered in model 3 (69%). In the Netherlands, it was 48% whereas this percentage was much smaller in Germany (29%) and England (17%). This also emphasizes the different influence of these predictors in the four countries.

Table 3. Logistic regression analyses on early usage of ECEC.

Table 5. Logistic regression an		Model 1		Model 2		Model 3	
country		β (SE)	p	β (SE)	p	β (SE)	p
	Maternal employment	.08 (.07)	.257	.09 (.08)	.269	.10 (.08)	.228
	Maternal education	.22 (.08)	.004	.22 (.08)	.004	.22 (.07)	.003
	Migration generation	.08 (.08)	.309	.08 (.08)	.326	.08 (.09)	.363
	Material deprivation	.25 (.09)	.004	.25 (.09)	.007	.24 (.09)	.005
England	Perceived language skills			01 (.09)	.884	02 (.09)	.804
	Cultural maintenance					02 (.08)	.798
	Cultural adoption					.25 (.08)	.001
	Cultural					07 (.08)	.350
	R <sup>2</sup>	.12		.12		.17	
Germany	Maternal employment	.26 (.06)	.000	.21 (.06)	.000	.22 (.06)	.000
Germany	Maternal education	.28 (.06)	.000	.23 (.07)	.000	.23 (.07)	.001

gration	15	001	02 ( 00)	702	01 ( 00)	054
neration	(.06)	.021	.02 (.08)	.782	.01 (.08)	.954
terial	00 ( 07)	0.60	02 ( 07)	014	02 ( 07)	01.6
orivation	.00 (.07)	.900	.02 (.07)	.014	.02 (.07)	.816
ceived						
guage			.31 (.08)	.000	.31 (.09)	.000
lls						
ltural					04 (.06)	.508
intenance						
ltural					12 (.07)	.099
ption						
ltural						.489
ntact					.05 (.07)	.407
	.22		.28		.29	
ternal	17 ( 10)	071	17 ( 10)	075	18 ( 10)	.061
ployment	.17 (.10)	.0/1	.17 (.10)	.073	.18 (.10)	.001
ternal	47 ( 00)	000	47 ( 08)	000	36 ( 07)	.000
ıcation	.47 (.00)	.000	.47 (.00)	.000	.50 (.07)	.000
gration	02	971	00 ( 15)	000	01 ( 15)	060
neration	(.11)	.071	00 (.13)	.900	.01 (.13)	.960
terial	10	111	- 00 ( 14)	500	_ 13 ( 11)	.254
orivation	(.13)	. <del>+++</del>	U) (.1 <del>4</del> )	.500	13 (.11)	.234
ceived						
guage			.02 (.14)	.885	.07 (.13)	.589
lls						
	terial privation received guage Ils Itural intenance Itural poption Itural ternal ployment ternal gration gration terial privation received guage	terial orivation ceived guage lls ltural intenance ltural option ltural ntact .22 ternal ployment ternal gration gration02 neration (.11) terial10 orivation ceived guage	terial .00 (.07) .960  received guage  Ills  Itural intenance  Itural option  Itural .17 (.10) .071  ployment ternal .47 (.08) .000  received .11)  received .11)  received .13)	100 (.07)   .960   .02 (.07)   .00 (.07)   .960   .02 (.07)   .00 (.07)   .960   .02 (.07)   .31 (.08)   .31 (.0	terial	terial

	Cultural					27 (.09)	.001
	maintenance					(102)	••••
	Cultural					.17 (.12)	.151
	adoption					.17 (.12)	.101
	Cultural						.410
	contact					.11 (.14)	
	R <sup>2</sup>	.33		.33		.48	
	Maternal	.66 (.12)	.000	.63 (.12)	.000	.65 (.09)	.000
	employment	.00 (112)	•000	100 (112)	•000	100 (103)	•000
	Maternal	.16 (.18)	.371	.26 (.20)	.190	.20 (.16)	.206
	education	.10 (.10)	.571	.20 (.20)	1170	.23 (.13)	00
	Migration	.13 (.18)	.460	.04 (.19)	.828	.08 (.18)	.644
	generation	113 (110)					
	Material	01	.952	.00 (.11)	.965	02 (.13)	.878
	deprivation	(.12)		()	.,	(132)	
Norway	Perceived						
	language			23 (.17)	.171	20 (.19)	.294
	skills						
	Cultural					25 (.14)	.065
	maintenance					(/	
	Cultural					21 (.14)	.113
	adoption					.21 (.1.)	.110
	Cultural						.091
	contact					.21 (.13)	.071
	R <sup>2</sup>	.53		.57		.69	1

*Notes:* Displayed are standardized regression coefficients, standard errors in brackets, significance and explained variance.

# **Discussion**

The present study aimed at identifying predictors of a very early ECEC usage (in the first two years of life) among families with a Turkish immigration background in England, Germany, the Netherlands and Norway. Next to structural family characteristics (maternal employment and education, material deprivation), we also examined families' acculturation attitudes and the perceived language skills in the host country as possible predictors. Logistic regression analyses yielded differences across countries, which became apparent in terms of both explained variance and significance of different predictors. Differences in findings between countries might indicate different mechanisms in early access to ECEC.

Material deprivation: England, for example, seems to be quite successful in bringing children from financially disadvantaged families very early to ECEC. We found this positive correlation between material deprivation and early ECEC attendance only for England. This may be explained by the strong tradition of early excellence centres / children centres in England which are particularly designed for the needs of socially disadvantaged families, as well as by the integrated system of social, health and ECEC services. In Germany and in Norway, there was no correlation at all. Contrary, in the Netherlands, a material deprivation was negatively related (though not being statistically significant) to the outcome.

Maternal Employment: Maternal employment, often discussed as main factor for the need of early ECEC, was only significant predictor for German and Norwegian families with Turkish immigration background. For Germany, this can be explained by the long tradition of ECEC utilization (and entitlement) only in case if the mother is employed and not able to care for her child by herself. Besides and despite of legal right in Germany nowadays, employed families are still favoured by heads of ECEC

centresand some families decide for maternal care in the first two years of a child's life, because they think it is better for child well-being. In Norway, maternal employment was strongest predictor and corresponded to a large effect size. However, in England maternal employment was not significantly related to the outcome, and in the Netherlands only marginally. A possible reason for this result is that part-time working is quite common in these countries for mothers in the first years after having a baby, and mothers often choose informal family-based care for their working times.

Acculturation strategies: Acculturation attitudes proved to be significantly related to the early ECEC usage of families with a Turkish immigration background in England and the Netherlands. In England, families who are orientated towards cultural adoption tend to use ECEC more likely in first two years of life of their child. Cultural maintenance attitudes, on the other hand, are a negative predictor for early ECEC usage in the Netherlands and might relate to the assumption that their Turkish backgroundcould be endangered by their children's participation in ECEC. The finding that the perceived German skills predict early ECEC usage in Germany is a sign that in times of competing with other parents for a place in ECEC, especially in urban areas, parents with good German skills are more successful in finding a place (obtaining information about available centres and places, applying at the centre and for financial benefits). Good German skills may also be a sign of being well integrated and oriented towards the German educational system. It is also possible that families with Turkish immigration background and worse German skillsaredisadvantaged by the ECEC centresbecause ECEC heads worry more challenges in the family-centre-partnership and bigger workload for their staff due to the assumption that these families are less integrated and communication is more difficult. Hence, this might indicate inequalities in access to ECEC in Germany.

Limitations: This study faces some limitations. The samples are not representative for the Turkish population in the countries. This also manifests in the participation rates which differ from the current attendance rates in the countries. Hence, descriptive statistics and mean differences across countries cannot be generalized. The sample size in Norway is quite small, which is a reason that some predictors failed threshold for statistical significance though the regression coefficients corresponded to small to moderate effect sizes. Furthermore, the material deprivation and acculturation attitudes might have changed over time. Strictly speaking, we predicted the outcome backwards by the current material deprivation and acculturation attitudes. However, the previous usage of ECEC also might have affected the current financial situation and acculturation attitudes. Besides, the partly small amount of explained variance, especially in England and Germany, indicates that there are more relevant predictors that were not addressed in this study. Moreover, the survey did not assess use of informal, non-familiar home-based care in first two years of life. From a legal perspective, this is an equivalent form of ECEC compared to formal, centre-based ECEC though there are many differences in quality aspects (e.g., staff qualification, group-size). It is possible that informal care arrangements are more preferred by, e.g., part-time working mothers due to more flexible arrangements.

Implications: Following these results and limitations, future research could address more predictors of early ECEC use that are also located at the meso- or macrolevel. Examples are the average costs for ECEC for a family with a given income, the ratio of demand and supply in places in ECEC in a given region as well as indicators for admission criteria (e.g., financial support by municipality or provider for accepting disadvantaged children in a centre). Besides, strategies for informing families about possibilities of childcare and its financing (also regarding use of other languages than

the national language) or an evaluation of the efforts and demands for getting a place in ECEC in a given region might influence the chances for a young child with immigration background to get a place in ECEC. The finding of positive associations between material deprivation and ECEC use is somewhat unexpected. While the fact that financial support exists for families with low incomes can help to explain these findings, this needs to be explored further.

Comparative research across countries also reveals policy implications. Countries could learn from Norway that succeeds in opening ECEC at an early stage for families with a Turkish immigration background. A possible explanation for this are the high employment rate of women and the legal right for enrolment to ECEC for all children older than one year. In Germany, policy efforts should aim at granting equal access to early ECEC by, e.g., multi-lingual information strategies and less language barriers in applying for a place in ECEC. Another challenge is to overcome the barrier that parents who want to maintain their culture do not use ECEC from an early age onwards. According to earlier studies, immigrants with a Turkish background prefer to maintain their language and culture (e.g., Bezcioglu-Goktolga& Yagmur 2018; Crul et al. 2012). However, most ECEC services are still mono-lingual and children's family languages are not sufficiently considered, even in cosmopolitan cities where immigrants make up a large proportion of the population (Jahreiß, Ertanir, Frank, Sachse&Kratzmann 2017). Promising ways of addressing these issues include intercultural mediation services, language training for ECEC staff, bilingual language stimulation programmes for children, and a continuous support for ECEC staff in order to reflect on daily practice (Peeters et al. 2015).

An early participation in high quality ECEC is contributing to a reduction of educational inequalities for children from disadvantaged families. However, there is evidence of inequalities in early access to ECEC in some countries, which needs to be addressed in order to use the potential of early childhood education and care.

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# **Declaration of Interest Statement**

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