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Feelings of Guilt When Caring for Parents Across Borders: The Role of Gender and Country-Specific Care Systems and Norms

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ABSTRACT

It is well established that families maintain ties across national borders. Research shows that caregiving obligations between adult children and their parents can induce care burden and negatively impact well-being, particularly when children are unable to adequately care for parents abroad. Guilt is the most common of personal feelings involved in care burden and yet often neglected in research. Research also highlights gender differences in care burden shaped by social norms, with women typically reporting more guilt than men. However, we still have a poor understanding of the factors leading to difference in feelings of guilt between men and women in transnational families. This article focuses on male and female residents in Germany who provide care to parents living abroad, comparing them with individuals whose parents also reside in Germany. Through this comparison, we aim to deepen the understanding of the specific challenges and well-being outcomes related to caregiving in transnational families. Our findings show that transnational family ties do not inherently increase feelings of care-related guilt. Rather, guilt is higher when parents live in countries with family-oriented institutional care systems and stronger norms of caregiving. Contrary to expectations, these effects are not stronger for women. Still, across all contexts, women report higher levels of guilt than men—regardless of whether care takes place within national borders or across them, and regardless of care institutions and norms.

1 | Introduction

It is well established that families maintain ties across international borders following migration (Baldassar et al. 2007). Such transnational families (Mazzucato 2014) can take various forms, for example migration of one or both parents while children remain in place, migration of child(ren) while the parents stay or migration involving different relatives. In Germany, the case of interest here, the most common type of relationship in such transnational families is adult migrants' tie to their non-migrant parents (Schiefer and Nowicka 2024). This aligns with the literature on intergenerational care in transnational families, generally focusing on perspectives and experiences of migrants and their relationships to elder family members who remained in place[1] (Mazzucato and Schans 2011; Baldassar and Merla 2014; Baldassar et al. 2007; Tu 2023; Sethi et al. 2022; Boccagni 2015; Sampaio and Carvalho 2022).

Caring for (elderly) family members can be rewarding, but it can also be experienced as physical, emotional, social or financial burden (Reinhard and Horwitz 1995; Lai 2010; D'Amen et al. 2021) and negatively impact individuals' psychological well-being (McConaghy and Caltabiano 2005). It is recognised that transnational families face additional challenges in managing care obligations (Baldassar and Merla 2014), and our own quantitative analyses confirm that respondents in Germany whose parents live abroad (their majority are first-generation migrants) report higher care burden than long-distant but intra-national

(within one nation state) caregivers (Schiefer and Nowicka 2024; see also Kilkey and Merla 2014). In this regard, guilt is an emotion that has been described as among the most common personal feelings related to experiences of care burden (Vermot 2015; Liu et al. 2020; also Connidis and Barnett 2019, 207) and proved to diminish psychological well-being (Losada-Baltar et al. 2024; Muro Pérez-Aradros et al. 2023). Yet, guilt remains an underestimated dimension of care burden in transnational caregiving. While it is certainly associated with other forms of care burden (e.g. financial strain or physical exhaustion), it represents a distinct psychological experience that is not reducible to these other forms. Unlike external or situational burdens, guilt is internally generated and often rooted in perceived personal inadequacy or failure to meet caregiving ideals, necessitating focused investigation.

Qualitative studies among transnational families indicate that caregiving is unequally distributed between men and women, with a greater share falling to women (Baldassar et al. 2007; De Silva 2018; Pessar and Mahler 2003), although recent research highlights the changing role of men in caregiving (Fresnoza-Flot 2023). Recent research also suggests that gendered differences in care arrangements are related to the country of origin of migrants (Evans et al. 2024).

Another body of research unrelated to migration and transnationalism studies seeks to explain gender differences in caregiving and their implications for care burden and well-being (Cascella Carbó and García-Orellán 2020; Labbas and Stanfors 2023). While both men and women can experience care burden and decreased well-being, women tend to be the ones who take the biggest share of unpaid care to elderly relatives, while they also increasingly participate in labour force and must reconcile work and multiple care and household obligations (Alburez-Gutierrez et al. 2020; Cascella Carbó and García-Orellán 2020; Petrou and Withers 2024). While differences between men and women seem to exist across the world, this research also suggests that the level of care burden varies between the countries. This variation may be due to structural or cultural differences (Brandt et al. 2023). However, the vast majority of the studies addressing gendered patterns of increased care burden focus on families living within a single country (Bom et al. 2019; Chappell et al. 2015) and therefore offer limited insights into transnational families.

This article brings these strands of scholarship together to better understand differences in feelings of guilt as an indicator of care burden between men and women in transnational families. We focus on male and female residents in Germany who provide care to parents living abroad (transnational ties). We compare this group with residents whose parents do not reside abroad (intra-national ties) to address the role of care systems for care obligation in transnational families (Kilkey and Merla 2014) and to account for the role of country-specific institutional and cultural factors of gendered care roles. In this respect, our study diverges from common approaches that selectively research intra-national ties among families or treat transnational families as a homogenous group.

The findings of our analysis indicate that having parents abroad (vs. within the same country) is not inherently associated with stronger feelings of guilt among caregiving children. Importantly, however, respondents' feelings of guilt vary with the place parents reside abroad. Those with parents living in countries with low governmental health expenditures show higher levels of guilt than those with parents living in 'high spending' countries, indicating that national institutional care systems in countries of parental residence affect well-being in families. Furthermore, given the nature of gendered social norms, we expected that the role of institutional care systems and cultural norms of caregiving in feelings of guilt would be amplified among women. However, this was not the case. Interestingly, the results indicate that female respondents experience a greater sense of guilt than male respondents—irrespectively of where parents live and the care system they find themselves in. Although our data do not allow to disentangle the impact of institutional care systems in contrast to cultural norms of caregiving, first indications suggest that both play a relevant role.

Our research contributes to the field of transnationalism studies, particularly to the ongoing discourse on global and local dimensions of care (Raghuram 2012). It does so by addressing the role of global gendered patterns of guilt in intergenerational care, as well as the influence of local differences related to the institutionalised cultural care systems. By including the countries of residence of parents in the analysis, we also add to the debate surrounding the relative influence of cultural versus structural factors in shaping gendered patterns of intergenerational care. Finally, by shedding light on the gendered patterns of feeling of guilt, we add to the understanding of global migration-related reproduction of gender inequalities in care.

2 | Gendered Patterns of Intergenerational Caregiving in Transnational Families

2.1 | Obligations of Care in Transnational Families

Intergenerational caregiving arrangements in transnational families enjoy a growing interest in social sciences (Miyawaki and Hooyman 2021). The mostly qualitative research documents the continuities of felt obligation of care as well as challenges that adult migrant children experience when they want to provide care to their elderly family members abroad (Baldassar and Merla 2014; Merla et al. 2020; Yeoh and Collins 2022). Studies in various countries draw our attention to cultural expectations of (reciprocal) care and possibly diverging expectations between elderly parents and their adult children of how care can be provided (Krzyżowski and Mucha 2014; Amin and Ingman 2014; Zechner 2008; Radziwinowiczówna et al. 2018). As Kilkey and Merla (2014) notice, institutional contexts also seem to impact intergenerational care practices, both through the resources the family members in need of care have and those accessible to their caregivers. Both institutional and cultural factors demand the family members to re-negotiate the roles and practices of care (Mazzucato and Dito 2018; Mahfoudh et al. 2021).

Most studies demonstrate that the obligation of caregiving to (elder) family members typically falls on women, a pattern that persists even when children migrate abroad (Baldassar et al. 2007; De Silva 2018; Pessar and Mahler 2003). Although recent research points to the complexity of care arrangements and the evolving role of men in caregiving (Fresnoza-Flot 2023), this does

not contradict evidence showing that transnational caregiving continues to be shaped by heteronormative and conservative gendered norms (McDowell et al. 2005; Mahon and Robinson 2011; Michel and Peng 2017; Sahraoui 2019).

Despite the large number of studies on transnational caregiving, scholarship tends to underestimate the diversity of transnational family constellations in terms of their geographical locations. Systematic comparisons between groups of migrants from various countries residing in one state, between migrants from one country to different countries or between migrants and non-migrants are rare (noteworthy exceptions include Krzyżowski 2015; Mazzucato and Dito 2018; Mazzucato et al. 2015; Nedelcu et al. 2024). Such comparisons, however, are important given that caregiving across borders can be experienced very differently depending on various contextual aspects. Geographical distance, for example, is relevant insofar as it can increase time and costs of transportation, complicate travel arrangements and hinder communication between family members (Cagle and Munn 2012), aspects that were identified as factors relevant for intergenerational caregiving and care burden (Heylen et al. 2012; Mulder and van der Meer 2009). While distance can also impact caregiving between family members within countries, cross-border separation involves additional aspects such as nation-specific migration policies, welfare state regulations and specific shared norms of caregiving. Our own research shows that the larger the distance between the caregiving and care-receiving family members, the larger the reported care burden. Additionally, migrants are negatively affected by conditions specific to their countries of origin, such as mobility restrictions (Schiefer and Nowicka 2024). The impact of these various contextual aspects on the experience of caregiving across borders is still less enough understood.

2.2 | Gendered Patterns of Caregiving and Care Burden: Structural and Cultural Explanations

Across the literature, the findings are consistent and show that female caregivers report greater stress, depressive symptoms and caregiver burden than male caregivers, even when other factors such as the type of illness or the caregiver's age are considered (Revenson et al. 2016a; Pinquart and Sörensen 2006). While gender differences appear to exist globally, research suggests that the level of care burden varies between the countries (Revenson et al. 2016b; Brandt et al. 2023). This variation can be attributed to differences in institutional care systems and cultural norms. These factors, individually or in combination, may help to explain cross-national gender differences in care burden.

By institutional care systems, we refer to the policies, laws and public measures that shape care arrangements within each country. These systems can be placed on a spectrum between the family and the state as the primary providers of care (Saraceno and Keck 2008; Saraceno 2016). Based on different welfare state models and macro indicators for family and elder support as well as care norms, (European) societies can broadly be categorised into family- and service-based care regimes (Anttonen and Sipilä 1996; Kaschowitz and Brandt 2017). Care burden can be influenced by institutional care systems via two mechanisms: First, the existence of state support—or rather, their lack—leads to the objective burden of care for family members (in particular women) who cannot rely on the state to provide care services or financial support. In countries with more public alternatives to family care, the stress-enhancing effects of caregiving could be partly diminished due to the use of formal support services. Second, perceived alternatives to family care are associated with a greater sense of control in the decision-making and, in turn, with less care burden (Verbakel 2014; Verbakel et al. 2023; Wagner and Brandt 2018).

By cultural norms of caregiving, we mean normative expectations shared by members of a society concerning the question of who should care for those in need. Studies highlight that such expectations vary across cultural contexts (Revenson et al. 2016b). Such shared expectations may be related to institutional care systems (e.g. certain institutions can be a result of cultural norms). Furthermore, as research suggests, they are often gendered, with women facing higher expectations to care for family members in need (McDowell et al. 2005; Serra Mingot 2020). Such gendered norms may play a particular role in settings where the institutional care systems consider the family as the primary provider of care: Brandt et al. (2023) show in the European country comparison of caregiving for families living within the same nation-state that varying legal stimulations between countries reveal an increased likelihood for women to support their parents but no change for men when being in the same situation. This gender variation in case of a family-focused healthcare provision system was most notably also evident during the COVID-19 pandemic, when even highly institutionalised care settings had to rely on the family, given the universally unpreparedness for the pandemic (Raiber and Verbakel 2021). However, although literature suggests that gendered care norms may put the obligation of care primarily at women worldwide, other research also points to variations across countries which are themselves associated with other cultural values (e.g. collectivism vs. individualism), religiosity or socio-economic conditions (Floridi et al. 2022).

2.3 | Feelings of Guilt in Intergenerational Care Relations

Guilt is an unpleasant emotional state arising from the perception that one has violated personally or socially relevant norms through certain actions or inaction (Kugler and Jones 1992; Baumeister et al. 1994). Feelings of guilt are strongly linked to interpersonal relationships. At moderate levels, they can have a positive social function (e.g. motivation to align one's behaviour with social norms, make amends after norm transgression), while excessive and continuous guilt can be detrimental for well-being by causing self-derogation, helplessness, depression and resulting physical symptoms (Baumeister et al. 1994; Tilghman-Osborne et al. 2010).

Guilt is a central yet underestimated dimension of care burden. First, because it stems from comparing one's own caregiving performance with internalised social expectations, it is tied to cultural norms of caregiving; these norms are gendered, with women typically facing higher expectations. These cultural and gender-specific norms are a core focus of our paper. Second, unlike other aspects of care burden, guilt is rooted in self-evaluation and is therefore more likely to trigger mental suffering. Research

shows that feelings of guilt are associated with depression, anxiety and reduced self-esteem (Gonyea et al. 2008). Investigating guilt is therefore essential to understanding how caregiving is experienced and managed.

Feelings of guilt have been discussed in the context of intergenerational care relationships (Gonyea et al. 2008). Following stress–appraisal models of caregiving (Lawton et al. 1991), guilt feelings arise from caregivers' evaluations of care demands and the resources they are able to invest in caregiving. In particular, they can result from a mismatch of demands and resources (Igarashi et al. 2013; Grundy and Henretta 2006; Carbajal et al. 2024). Due to their self-deprecating connotation, they can then pose a demand in itself, which caregivers must cope with. Accordingly, feelings of guilt were identified as predictor of informal caregivers' diminished psychological well-being (Losada-Baltar et al. 2024; Muro Pérez-Aradros et al. 2023). Past research showed that women are more likely to be affected by such a role then men (Gonyea et al. 2008).

Few studies on transnational families engage explicitly with the guilt experienced by individuals who maintain transnational family ties and try to fulfil care obligations across borders (Connidis and Barnett 2019, Baldassar 2015). They indicate that geographical distance poses a challenge for migrant caregivers, increasing the likelihood of guilt feelings (Sethi et al. 2022), and women were found to be more affected than men (Vermot 2015). Yet, not all transnational caregivers may experience the same levels of guilt. Empirical studies investigating the conditions shaping feelings of guilt among transnational caregivers are sparse. A qualitative study conducted in Oslo among migrants from Poland and Finland suggests that institutional care systems and cultural care norms in the parents' country of living can be key drivers. A stronger familialism and poorer state support for people in need of care in Poland, compared to a defamiliarised regime in Finland, explain higher levels of emotional burden experienced by Polish migrants regarding providing care across borders to their elderly parents (Czapka and Sagbakken 2020). At the same time, some research suggests that individuals negotiate their obligations of care in a transnational context. In turn, care models of their countries of settlement and care norms in the country of origin both impact their feeling of guilt (Krzyżowski 2015; Kordasiewicz et al. 2018).

2.4 | Research Hypotheses

Based on the findings presented above, we expect stronger feelings of guilt for people with transnational family ties of care, that is individuals whose parents live abroad, than for intra-national ones. However, it is a central argument for us that those differences in feelings of guilt between transnational and intra-national caregivers are not uniform. We suggest that a key issue that particularly affects feelings of guilt in transnational caregivers is that the parents reside in countries which differ (1) with regard to their institutional care systems and (2) with regard to their cultural norms of caregiving. These country-level characteristics may influence feelings of guilt related to intergenerational care. Individuals with parents residing in countries with a family-oriented (as opposed to state-oriented) institutional care system may feel greater pressure to care for their ageing parents. The same applies to individuals whose families were socialised in societies with stronger family care norms. Additionally, we expect that gender-specific cultural norms of care may add another layer to the construct which would result in stronger feelings of guilt among women (in contrast to men) with parents socialised in countries with family-oriented institutional care systems abroad and stronger cultural norms of caregiving[2]. This results in the following hypotheses:

I. Men and women with transnational ties to their parents have stronger feelings of guilt due to care, in contrast to intra-national families.

II. The relationship of transnational ties and feelings of guilt is intensified if the parents reside in countries with family-oriented institutional care systems, in contrast to state-oriented systems.

III. Similarly, the relationship of transnational ties and feelings of guilt is intensified if the parents reside in countries with stronger cultural norms of caregiving, in contrast to weaker cultural norms of caregiving.

IV. Differences in institutional care systems and cultural norms of caregiving between the countries parents reside in are expected to affect guilt feelings of female caregivers more strongly than those of male caregivers. Accordingly, gender differences in guilt feelings are expected to be stronger if parents reside in countries with a family-oriented (vs. state-oriented) care system or with stronger (vs. weaker) cultural norms of caregiving.

3 | Study Design and Sample

3.1 | Participants

The respondents of our study are individuals aged 18–67 living in Germany who took part in the seventh wave of an online-access panel study conducted by the German Center for Integration and Migration Research (DeZIM-Institute). The initial recruitment of the panel took place in 2021 via a two-stage stratified sampling approach. The first stage comprised a random selection of municipalities using a probability-proportional-to-size approach and including the federal state and administrative district size as stratifiers. In the second stage, individuals were randomly drawn from lists provided by registration offices in the selected municipalities. The panel's research design included an oversampling of respondents from Turkey, other majority Muslim countries, countries with former guest worker agreements as well as ethnic German resettlers from Eastern Europe. Given that registration offices in Germany do not assess information on immigrant background other than country of birth, a name-based (onomastic) approach was followed to recruit members with potential migration background. Therefore, the sample comprises a relevant number of participants with and without migration background and with parents in different countries. Details on the study design and sampling procedure can be found at Dollmann et al. (2022).

In total, the sample consists of 3677 individuals, with 37% being migrants or direct descendants of migrant parents. We excluded

participants who reported that they no longer had parents or who did not answer questions regarding their parents ($N = 792$ participants were excluded). The sample used for the analysis therefore consists of 2885 individuals. Of these, 55% are female[3] and 16% stated that they have at least one parent living abroad.

3.2 | Measurements

Feelings of guilt were assessed using the item 'Somehow I feel guilty for not doing more for my parents'. It was adapted from Schoonover et al. (1988). Responses were given with four categories ranging from *Does not apply at all* to *Strongly applies*. For interpretability reasons, we dichotomise the measure in our analytical models. The two lower and two upper categories, respectively, were merged to create a dummy variable (low/high feelings of guilt). As a robustness check, we report the ordinary least square estimations with the four-level range of the dependent variable in the Supporting Information Appendix. Most importantly, there are no noteworthy differences between the outcomes of the two sets of models.

Cross-border separation was measured using the question 'Where do your biological or adoptive parents live?' with the response categories 'permanently abroad', 'permanently in Germany' and 'alternating between Germany and abroad'. Those who stated that their parents live permanently abroad or alternate were asked to report the country in which parents reside in. If parents lived in two distinct households, information on cross-border separation and country of residence was asked separately for mothers and fathers. Participants were categorised as having transnational ties to parents if at least one of their parents resided abroad or alternated between Germany and abroad. Even if parents lived in different households abroad, in most cases they still lived in the same country. The very few respondents with parents living in different countries were excluded from the analyses.

Additional variables capturing the support situation were included as control variables. We aim to capture the parental need for support via a measure of physical impairment of parents (yes, no). Adult children whose parents are not yet suffering from health problems may have a systematically different experience of guilt along the lines of the gendered relationship to guilt. Additionally, we control for the actual support intensity, as we presume this to be strongly linked to feelings of guilt and place of residence. We include a measure assessing the frequency with which adult children have supported their parents in the past 12 month and whether they are the only supporter for parents (yes, no). For the exact wording of the operationalisation, see the Supporting Information Appendix.

Additionally, we include two measures that we perceive to be relevant confounders of the relationships of interest: the distance between the respondent and the parents and the migrant status as such. The first may replace the effect of cross-border separation if care burden and feeling of guilt are driven by distance, instead of the particularities that come with border crossing. Distance was assessed via the travel time between the respondents and their parents ranging from 'we live in the same household', that is re-coded as 0 h, to '9 h and more'. If parents lived in two distinct households, information on distance (travel time) was asked separately for mothers and fathers, and the average of both is taken as indicator for the distance to parents. The latter measure, migrant status, is included because having transnational family ties typically involves some form of migration, whereas having only intra-national family ties may or may not involve being a descendant of migrants. Migration status is categorised in no migration status, first-generation migration status and second-generation migration status (i.e. at least one parent is a migrant, but not the respondent).

Table 1 documents descriptive statistics of the individual-level variables for the entire sample.

3.2.1 | Variations by Institutional Care System and Cultural Care Norms of Caregiving in Parents' Country of Residence

Our hypotheses suggest a variation in participants' level of care-related guilt depending on the institutional care system (family-based vs. state-based care provision) and (stronger vs. weaker) cultural norms of caregiving, in their parents' country of residence. To operationalise the institutional care system per country of parents' residence, we make use of two proxy variables. First, we use health expenditure in percent to the GDP per country from the World Bank (2023) data. The underlying assumption here is that countries with high amounts of health expenditure in relation to their GDP belong to state-oriented institutional care systems and countries with low amounts of health expenditure to family-based institutional care systems. We decided for this proxy instead of more specific indicators available in the OECD family data base (Saraceno 2016) and the Multilinks Database on Intergenerational Policy Indicators (Keck et al. 2009), because these do not cover all countries represented in our sample. Correlational analyses (see the Supporting Information Appendix) with these indicators support the assumption that health expenditure is a valid proxy for comparing state- versus family-oriented institutional care systems. The data are from the year 2019—the most recent complete published estimate without the COVID-19 pandemic.

To operationalise cultural norms of caregiving, we use country-level aggregations from the World Value Survey (Haerpfer et al. 2022) for the survey item 'Adult children have the duty to provide long-term care for their parents'. However, the distribution of the WVS variable is highly right-skewed on the country level. There are no countries with an average of people agreeing to this statement. Hence, we compare countries whose population exhibits more neutral cultural norms of caregiving to those with low cultural norms of caregiving[4].

To test robustness of findings, further analyses were conducted using other country-level proxies for care systems. These comprise country-level median income, estimates of the Gender Inequality Index[5] (GII, UNDP) as a gender norm approximation and female employment. Descriptive statistics for the two main country-level indicators can be found in Table 2. The results of the additional analysis for country-level income, gender equality and female employment are documented in the Supporting Information Appendix.

TABLE 1 | Descriptive statistics of the variables used for the analyses.

Variables	Valid responses			% missing
	M	*SD*	%	
High (vs. low) feelings of guilt due to care	NA	NA	39.00	7.56
Gender: Female (vs. male)	NA	NA	54.50	0.17
Parents live abroad[a]: yes (vs. no)	NA	NA	15.92	2.46
Supporting parents: yes (vs. no)	NA	NA	82.57	5.13
Supporting parents frequency (Range: 1 = *Never* to 8 = *Daily*)	4.25	2.20	NA	5.13
Supporting parents alone: yes (vs. no)	NA	NA	20.75	7.28
Parents impairment[b]: yes (vs. no)	NA	NA	61.55	4.71
Distance to parents in hours[c] (Range: 1 = *Same household* to 8 = *9 h and more*)				
Total sample	3.46	2.00	NA	3.43
Parents live in Germany	2.92	1.47	NA	0.68
Parents live abroad	6.66	1.73	NA	14.29
Migration background				
None	NA	NA	62.42	0.10
First generation	NA	NA	21.65	0.68
Second generation	NA	NA	15.93	14.29

Abbreviation: NA, not applicable.

[a]At least one parent lives abroad or commutes between Germany and abroad.

[b]At least one parent is limited in carrying out normal daily activities.

[c]In cases where parents lived in separate households, the values for mother and father have been averaged.

TABLE 2 | Institutional care systems and cultural norms of care in countries parents reside in—Distribution of sample.

Country-level indicator	Categories	*N* in sample (respondents with at least one parent living abroad)
Health expenditure in countries parents live (World Bank)	Low	183
	High	190
	Missing[a]	75
WVS Duty of care towards parents	Low	147
	High	66
	Missing[a]	235

[a]No country-level score available, no information on parents' country of residence available or parents live in different countries.

3.3 | Analytical Procedure

We conduct a stepwise regression where we first include the core variables of interest into the model, and then stepwise add the described individual-level covariates, relevant individual-level control variables and the hypothesised interaction effect between gender and transnational ties between the individual and their parents. Given the dichotomous dependent variable structure, we employ a logistic regression approach. In line with the reported hypotheses, we do so by first focusing on the direct effect of gender on feelings of guilt (Model 1) and, secondly, on the impact of cross-border separation directly (Model 2) and as a moderator of the link between gender and feelings of guilt (Model 3). Models 4 and 5 include control variables.

In subsequent regression models, we add the country-level variables and employ marginal effect predictions to estimate differences in feelings of guilt according to these country-level indicators. We compare the lower and higher level of each country-level variable. The continuous variables were categorised based on a median split, and the categorical variable income (four levels) was aggregated to a binary variable. We additionally employ a multilevel approach (see the Supporting Information Appendix) but remain with the simpler interpretable procedure in the main text.

4 | Empirical Results

Our core focus is to study feelings of guilt with regard to transnational and intra-national families, the role of gender in

TABLE 3 | Results logistic regression.

	Dependent variable: Feelings of guilt due to care				
	M1	**M2**	**M3**	**M4**	**M5**
Gender: female	0.119	0.138^{+}	0.202*	0.266**	0.266**
	(0.08)	(0.08)	(0.09)	(0.10)	(0.10)
Parents live abroad: yes		0.841*	1.04**	−0.217	0.012
		(0.11)	(0.16)	(0.25)	(0.52)
Gender: female × Parents live abroad: yes			−0.371^{+}	−0.269	−0.280
			(0.22)	(0.25)	(0.25)
Support for parents (ref.: never)					
Once or several times per year				1.00**	0.999**
				(0.17)	(0.17)
Once or several times per month				1.211**	1.210**
				(0.17)	(0.17)
Once or several times per week				1.244**	1.245
				(0.18)	(0.18)
Daily				0.901**	0.902
				(0.24)	(0.24)
Supporting parents alone: yes				−0.121	−0.122
				(0.12)	(0.12)
Parents impairment: yes				0.633**	0.634**
				(0.10)	(0.10)
Distance to parents (travel time)				0.176**	0.177**
				(0.03)	(0.03)
Migration background (ref.: none)					
First generation				0.803**	0.814**
				(0.14)	(0.16)
Second generation				0.564**	0.575**
				(0.13)	(0.13)
Parents live abroad × First generation					−0.242
					(0.53)
Parents live abroad × Second generation					−0.281
					(0.58)
Constant	−0.516**	−0.667**		−2.803**	
			−0.702**		−2.810**
	(0.06)	(0.06)	(0.07)	(0.21)	(0.21)
N	2663	2620	2620	2328	2328

Note: Numbers represent regression coefficients, and numbers in parentheses represent standard errors.
$^{+}p < 0.10$;
*$p < 0.05$;
**$p < 0.01$.

this construct and the role of institutional care systems and cultural norms of caregiving in the country of birth of the parents. Table 3 presents the results of logistic regression models on the dichotomous dependent variable of high (vs. low) feelings of guilt. In contrast to our expectations, we do not observe an effect of cross-border separation from parents per se. Albeit significant in M2 and M3, the significance disappears with the inclusion of key control variables of support, distance and migration background. Instead, in M4 and M5, the estimation of potential confounding variables, distance to parents in hours as well as the migration background (first and second generation) among participants significantly predicts guilt. The respondents indicate more often a feeling of guilt with increasing distance to their parents in hours and when having a first- or second-generation migration

background, in contrast to no migration background. These results do not support Hypothesis 1.

Furthermore, the results in Table 3 reveal a significant effect for gender in the models M3, M4 and M5 and a marginally significant gender effect in M2. Overall, women seem to indicate stronger feelings of guilt in contrast to men. This relationship holds even when including key control variables. However, there is no significant interaction effect between gender and cross-border separation (nor—shown in additional analyses—between gender and geographical distance or migration background). Thus, based on the present results, gender differences in feelings of guilt seem to be rather universal regardless of where parents reside.

The different operationalisation of support settings—included as control variables—reveal interesting insights in themselves. Unintuitively, we see a stable estimation for the effect of higher support frequency on feelings of guilt. In other words, those who already support their parents with care feel more often guilty than those who do not—even when controlling for the need of support by parents (parents' physical impairment). Capturing more the level of care burden, the results reveal that whether an individual is the alone caregiver or shares this duty with siblings or other networks has no significant effect on the feeling of guilt, while the indication of a need for support based on parents' impairment is strongly and significantly associated with the feeling of guilt. This gives a glimpse of the complexity of the relation between care burden and feelings of guilt due to care. In line with McConaghy and Caltabiano (2005), this once again supports that feelings of guilt can be seen as a related yet not deterministic concept of care burden.

4.1 | Variations by Parents' Country of Residence

Given our expectation that effects of parental cross-border separation on the feeling of guilt may vary with the institutional care systems and the cultural norms of caregiving in the country parents reside in, we explore the following respective country-level differences. First, we focus on structural factors in the form of health expenditure per country, as a proxy for the institutional care system per country. Second, we add a cultural norm indicator using the WVS data.

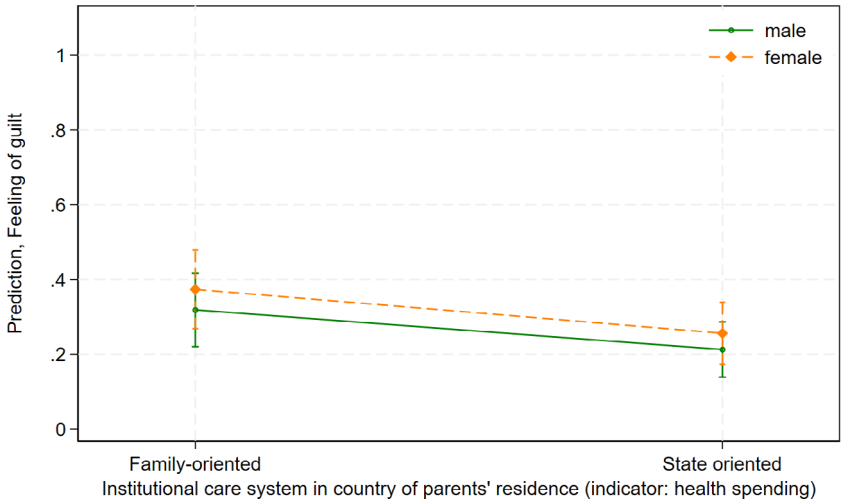
The graphical visualisations show predictions for the feeling of guilt based on the parental country of residence. The estimands and confidence intervals are visualised for women (diamond shape, orange) and men (circle shape, green) varying in high versus low health expenditure spending in the country parents reside in (Graph 1).

Besides visualising results from Table 3, Graph 1 provides insights into the influence of the institutional care system in the country the parents reside in. It reveals that the guilt level is overall higher for participants whose parents reside in a 'low spending' country than for those whose parents reside in a 'high spending' country. In other words, individuals with parents living in countries with low governmental health expenditures are found to have higher feelings of guilt than those with parents living in countries with higher governmental health expenditures. Although confidence intervals overlap, this pattern aligns with our expectations (Hypothesis 2) concerning the impact of a state- versus a family-oriented institutional care system. Individuals with parents residing abroad in family-oriented institutional care systems, here proxied via an operationalisation as low governmental health spending, are predicted to have higher feelings of guilt compared to those residing abroad in countries with more state-oriented institutional care system.

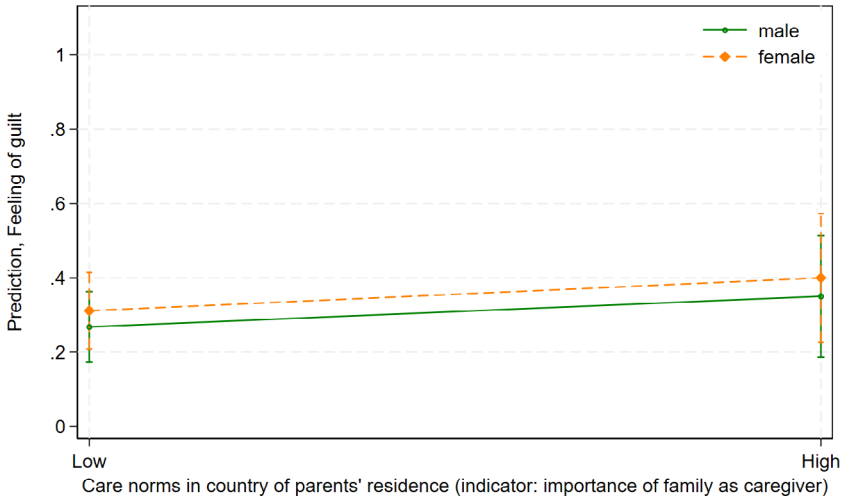
As documented in Table 3, gender is associated with feelings of guilt regardless of where parents reside. These findings are consistent with the literature suggesting that gendered norms of care may place the burden of care primarily on women globally (McDowell et al. 2005; Serra Mingot 2020). Graph 1 replicates this finding showing that the lines of effect estimation for men and women are parallel. Thus, in our data, gender differences in guilt feelings are neither related to the cross-border separation with their parents nor to the institutional care system in the countries parents live in. Women experience stronger levels of guilt than men, regardless of whether parents live in a country with a family- or a stated-oriented institutional care system. Although the analytical estimations may not confirm the absence of an interaction effect and, as shown by the overlapping confidence intervals by gender, may not clearly indicate a cut per gender, we observe a notable and stable difference that can be interpreted as suggestion for a higher guilt level among women seemingly independent of macro-level influencing factors.

One could argue that institutional care systems must not necessarily align with the level of gender inequality in these countries. Hence, we would not necessarily observe a gender effect varying with health expenditure in parents' country of residence but with level of gender inequality. To test for the influence of gender inequality, we additionally conduct the same analysis using data of the GII instead of the health spending per country. The results (documented in the Supporting Information Appendix) show no noteworthy variation in the gender differences when comparing participants with parents living in countries with high versus low gender equality. Both effect estimation lines are parallel per gender. Hence, even when focusing on gender inequality per country we do not find an additional effect per gender. Also, similar to the effect of health expenditure shown above, feelings of guilt appear to be higher among participants whose parents reside in countries with a low gender equality compared to those with parents who reside in countries with high gender equality.

The second country-level comparison refers to cultural norms of caregiving. As we have reviewed, another argument known from theoretical literature is that it is family norms that transmit potential feelings of guilt instead of institutional settings. Focusing on cultural norms, we compare parental countries of residence that differ regarding expectations whether adult children should care for their parents (proxied via average responses to a respective WVS item). Graph 2 reveals the pattern. Feelings of guilt are estimated to be higher among those whose parents reside abroad in countries with higher care expectations compared to those with parents who reside in countries with lower care expectations. The slopes show similar effect sizes compared to those in Graph 1 (regarding health expenditure). Again, these effects are similar for men and women.



GRAPH 1 | Predicted values of guilt in transnational parent–child relationships based on gender and the institutional care system (family-oriented/low health expenditure vs. state-oriented/high health expenditure) in the country parents reside in. Respondents included those with at least one parent living abroad. Graphs based on regression analyses controlling for parents' support needs, support provided to parents, distance to parents and migration background.



GRAPH 2 | Predicted values of guilt in transnational parent–child relationships based on gender and cultural care norms (duty of care of adult children towards their parents) in the country parents reside in. Respondents included those with at least one parent living abroad. Graphs based on regression analyses controlling for parents' support needs, support provided to parents, distance to parents and migration background.

Further analyses using additional indicators and using parents' citizenship instead of country of birth for differentiating between country-level indicators confirm the patterns described here (see the Supporting Information Appendix). Respondents report higher levels of guilt when their parent have a citizenship from a country with high (vs. low) health expenditure and high (vs. low) family care norms. They also report higher levels of guilt when parents live in a country with lower (vs. higher) median income and lower (vs. higher) female employment.

5 | Discussion

Existing research provides rich qualitative descriptions of how intergenerational care obligations and practices are maintained across borders when a family member moves abroad. This research also demonstrates continuous care obligations of adult migrants to their non-migrant parents. As with intra-national intergenerational care relations, these transnational caregivers often experience guilt as they juggle multiple care roles and other tasks. The research shows that women are particularly affected due to institutional and/or cultural care norms. Our study sheds light on how feelings of guilt are reported by female and male respondents in Germany depending on the location of their parents (abroad or within same country), as well as the institutional care systems and cultural norms of caregiving in their parents' country of residence.

We find higher levels of care-related feelings of guilt among women compared to men in most analytical models. Thereby, those men and women who already provide care to their parents feel higher levels of guilt than those who do not or do so less often, even when controlling for the need of support by parents, which supports the role of guilt in maintaining sense of commitment

in family relationships (Baumeister et al. 1994). We also observe that the feeling of guilt is not related to the role as the only care provider, which is contrary to our expectations given that previous qualitative research points to the importance of a functioning share of care work among family members, particularly siblings, for caregiver's well-being (Baldassar et al. 2007; Kordasiewicz et al. 2018). However, as we lack data on the specific kind and location of additional care providers for parents, such as respondents' siblings and their age or gender, we cannot explore this finding in depth.

Furthermore, feelings of guilt increase with higher geographical distance to parents. Once controlled for distance, cross-border separation of adult children and parents does not have a significant effect on guilt feelings. Thus, distance (in our study captured in hours of travel time) seems overall to be more relevant for feelings of guilt than cross-border separation between the adult child and their parents per se. Difficulties associated with caring across long distance, such as time and financial demands, which are also described in the literature on long-distance care (Cagle and Munn 2012), appear to be more decisive for guilt feelings than the fact that there is a national border between the family members, according to our findings. This seems to somewhat at odds with arguments found in the literature that aspects associated with cross-border separation, such as legal mobility restrictions, place further demands on care in addition to distance (Brandhorst et al. 2019). Indeed, our own research (Schiefer and Nowicka 2024) using a broader measure of care-related burden shows that such specific additional demands in cross-border family relations can be directly related to higher levels of care burden. This emphasises the distinctiveness of feelings of guilt in contrast to the related, yet not determining, role of care burden.

Importantly, however, we find that feelings of guilt in transnational intergenerational care relations are associated with institutional care systems and cultural norms of caregiving in countries parents reside in. Participants whose parents live abroad experience higher levels of guilt when parents live in countries with a lower level of health expenditure or stronger cultural norms of caregiving. Similar differences were found for gender equality, average income and the share of female employment, pointing to a stable pattern.

Our findings also point to a gendered pattern of guilt regarding intergenerational care: Women experience higher levels of guilt compared to men. Contrary to our expectations, however, these gender differences are not related to institutional care systems and cultural norms of caregiving in parents' countries of residence. Thus, gender differences seem to be rather universal instead of context specific. Several aspects might explain this finding. One is that, although it can be assumed that women experience stronger care-related expectations overall and therefore also show stronger feelings of guilt in the first place, it is possible that men's feelings of guilt also increase if there exist more family-oriented care systems and stronger norms of caregiving in parents' countries of residence. Some researchers argue, for example, that men in transnational care settings also experience strong caring responsibilities but are more likely to be able to fulfil them through financial support (Miyawaki and Hooyman 2021; Baldassar et al. 2007). In countries with less state financial support, the financial burden falls more heavily on family members, including men. Second, assuming that women are generally expected to provide care for parents when needed, the role of gender might come to the fore more pronouncedly when parents have a high care need. As described, we measure the need for care via limited ability to pursue everyday tasks. Studies distinguishing between parents with different levels of care needs are required to test this. Overall, the relationship between cross-border separation, the national context and gender remains complex and not straightforward, even with regard to our analyses, and requires further investigations.

Our results somewhat contradict the findings of similar studies that compare European countries. Brandt et al. (2023) found variations in gender effects depending on the national care context and concluded that welfare states can both preserve or reduce gender inequality in intergenerational support depending on specific institutional arrangements. Instead, we find that gender differences in care-related guilt in transnational families do not vary as a function of institutional care systems in participants' parents' countries of residence. Yet, despite universal gender effects, our findings nevertheless demonstrate that feelings of guilt are context dependent and vary according to distance but also according to the institutional care systems and cultural norms of caregiving in the countries the parents reside in. While qualitative studies have argued in the same direction previously, our study provides complementary quantitative evidence.

Our study has certain limitations which must be considered when interpreting its results. With regard to gender, we studied who supports, or more precisely who has a feeling of guilt because they perceive themselves as the person 'who should support', but the data did not allow us to disentangle the type of support that men and women provide to parents. We expect potential gender variation here. Given qualitative insights, it is highly plausible that men do support more with material (i.e. financial) support which can be provided more easily across distance, and women more likely provide immaterial support (i.e. time and hands-on care; see e.g. feminist theories to the welfare state) which is much more difficult to provide from distance. Thus, men are more able to meet their care expectations across distance and borders than women, resulting in lower levels of guilt. In that case, the here shown absence of an interaction between cross-border separation and gender might cover gender differences with respect to specific types of support. Furthermore, importantly, our indicators of institutional care systems and cultural norms of caregiving in the countries of residence of parents are only proxies. Future studies should include more concrete measures such as state expenditure on health with regard to elderly care or gender-specific intergenerational care expectations.

Another limitation is that our sample has significantly more respondents who migrated to Germany themselves or whose parents migrated to Germany, but relatively few respondents whose parents emigrated from Germany. Both family relationships lead to transnational ties. A more balanced sample could give us more detailed insights into the extent to which who migrates has an influence on the transnational relationship.

6 | Conclusion

Despite the need for more fine-tuned measures and samples in future studies, our study is one of the first to highlight the importance of the contextual configurations of transnational care arrangements for the way care is experienced. By showing that feelings of guilt are not universal in transnational care relations but vary according to institutional care systems and cultural care norms in the countries of parents' residence, we demonstrate that transnational families are not per se different from intra-national families but that specific contextual conditions can lead to unique experiences among these families. While previous research has generally highlighted the uniqueness of transnational family relationships as compared to intra-national families, future research should focus more strongly on the diversity of transnational families and attempt to better understand the mechanisms underlying the link between caregiving and well-being among those caring across borders. In that respect, future research can also benefit from more strongly linking and integrating research and theory on transnational families with the literature on long-distance family care relations within countries. Furthermore, future research should investigate whether our findings that only refer to intergenerational (elderly care) relations can be generalised to other care relationships such as between parents and their children.

Our study is one of the very few addressing guilt feelings as an important dimension of care-related burden in transnational families. By particularly targeting guilt as an emotional state resulting from subjective evaluations of one's caregiving performance vis-á-vis expectations of others, our study contributes to a more holistic understanding of caregiving burden in transnational intergenerational relations that goes beyond aspects such as physical exhaustion or financial burdens. Emotional aspects are less obvious than time and financial costs, as they are subjective, internalised and often experienced silently. Yet, they are strongly related to mental health problems such as depression. Conducting research in this area therefore also helps to tailor interventions more effectively to the actual needs of caregivers.

Apart from the scientific contribution, our research also has implications for policy making. Ultimately, feelings of guilt are also a result of state restrictions on intergenerational care, for example when migrant caregivers cannot bring their parents in need of care to their place of residence due to visa restrictions (Schiefer and Nowicka 2024) or when state regulations put aging parents who move abroad for retirement at risk of losing their eligibility for state support in their country of origin, thereby shifting the responsibility for care back to the family. In turn, feelings of guilt impair caregivers' psychological functioning, which, for example, negatively impacts their professional performance and thus their labour market integration, and ultimately the health system in the country of the caregiver.

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Ethics Statement

The survey program adheres to strict internationally acknowledged standards of good academic practice, legal requirements of the study country and guidelines of ethically appropriate research with human subjects.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data of this study are openly available for scientific use to registered users at the Research Data Center of the German Center for Integration and Migration Research (https://doi.org/10.34882/dezim.panel.download.4.0.0). The archived data are fully anonymised.

Endnotes

[1] Of course, in a less frequent way, it may also be the case that the parents move to third countries, but this is out of the scope of the present article. Here, we solely focus on non-migratory parents abroad, that is parents who reside in their country of birth.

[2] As described in the introduction, caregiving to parents who live abroad is affected not only by cross-border separation but also by geographical distance. Given that in this paper we focus on the role of country-level characteristics for feelings of guilt, which rather refers to the aspect of cross-border separation and less so to the aspect of geographical distance, distance was not included explicitly in the hypotheses. Yet, it was accounted for in the analyses (see Section 4). We address the role of distance more explicitly in a different paper (Schiefer and Nowicka 2024).

[3] Due to very small numbers, participants who self-identified as diverse had to be excluded from the analyses.

[4] More details on the operationalisation of the country-level proxies can be found in the Supporting Information Appendix.

[5] https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting File 1: glob70027-sup-0001-SuppMat.docx