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Family Cohesion in Comparative Perspective Digitally Mediated Contact, Kinship Support and Cultural Context across 15 Countries

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Abstract: The aim of this study is to explore the association between digitally mediated contact, generalised trust and family contact and family contact and kinship support orientation in 15 countries based on multilevel modelling of ISSP 2017 data. The study is a response to a central question in comparative family sociology and digital sociology: does digitally mediated communication undermine family relations or does it facilitate kinship contact in different trust and cultural contexts? The analysis was conducted on 18,450 adult respondents in 15 national contexts. Family contact and kinship support orientation was operationalised as a dependent variable, which was derived from ISSP items measuring kin contact, family-related support and normative family obligation. The results indicate that family contact and kinship support orientation were positively related to digitally mediated contact ($b = 0.18, p < .01$). The dependent variable was also directly positively associated with generalised trust ($b = 0.22, p < .001$). The interaction analysis showed that the positive relationship between digitally mediated contact and family contact and kinship support orientation was stronger for respondents who had lower levels of generalised trust ($b = 0.34, p < .01$), which is statistically consistent with a compensation effect. There was also meaningful country-level variation in the null model, with 14% of the variance between countries. Family contact and kinship support orientation was positively associated with collectivist cultural orientation ($b = 0.48, p < .01$). The study adds to comparative family sociology by demonstrating that digital communication does not have a uniform social impact, but instead, the impact of digital communication on kinship support is dependent on trust and cultural context.

Keywords: *family cohesion, digitally mediated contact, generalised trust, collectivism, multilevel modelling, social interaction.*

Introduction

Since the earliest days of the discipline, family cohesion and kinship network maintenance have been central concerns for sociologists, Particularly significant in relation to debates about social integration, intergenerational solidarity, and informal social support (Malik, F., & Mehmood, 2023; Roman et al., 2025; Fermin & Kjellstrand, 2025; Kushner, H. I., & Sterk, 2025; Maihasni et al., 2025) . Across the history of sociological enquiry, family has been recognised as a central institution for the transmission of emotional, material and normative support across the generations (Ganiyeva 2022; Tonkens & Verplanke, 2013; Harold et al., 2024; Davies et al., 2006; Lin et al., 2024) . The canonical intergenerational solidarity theory, for example, highlighted the significance of physical proximity, shared common interests and reciprocal benefit in maintaining family relations (Bengtson & Roberts, 1991). But the growth of digital media has clearly transformed the circumstances in which such solidarity is fostered. As interactions increasingly move from co-presence to digital interactions, traditional assumptions about the composition of family solidarity need to be empirically and theoretically tested.

Particularly significant, social media is crucial in this regard. Social media, in contrast to traditional modes of communication, provides constant, cheap, and immediate interaction over distance, thus is correlated with the persistence of family relationships despite migration, mobility within cities, and the increasingly fragmented nature of daily life (Ryan, 2023; Han, 2023; Jauhiainen, 2026; Vos et al., 2024). What might be called "digital proximity" runs against the sociological equation of distance as a form of social decay within family relationships (Dykstra, 2018). However, digitally mediated contact also expands social network links that expose people to larger circles of friendship, work connections and interest-based communities, which may erode or replace interactions with family members. As a result, the sociological consequences of high levels of digitally mediated contact are theoretically equivocal (Chen & Li, 2024; Vadamala et al., 2025). It might act as a type of digital glue that is associated with higher levels of emotional intimacy and regular familial contact, or a type of network individualisation that decentres the importance of kinship relations (Maihasni et al., 2025; Abel, 2021; Farhi et al., 2025.) Studies of online social networks have likewise demonstrated that social media

platforms can create both bonding and bridging types of social capital in relation to their specific social context (Ellison et al., 2007).

Resolving this ambiguity requires attention to broader social conditions. Generalised trust is a key, yet under-studied variable. Trust is defined as the degree to which people assess others, organisations and the broader social network as trustworthy and cooperative (Kaasa, A., & Andriani, 2022; Mingo & Faggiano, 2020). In low-trust environments, where there is greater relative uncertainty and mistrust of strangers, people may be more reliant on their family networks for social support and group identity protection (Khalili et al., 2024; Lahbib et al., 2025). In this context, social media may serve to deepen bonding family relations. Conversely, in high-trust settings, where interactions with strangers and institutions are generally greater and perceived to be safer, social media may support a mix of bonding and bridging relationships between families and the wider social world. Comparative research indicates that trust is condensed by the quality of institutions, equality and welfare systems, with Nordic societies often displaying very high levels of "generalised trust" (Delhey & Newton, 2005; Rothstein & Stolle, 2008). The effects of social media upon family unity, then, are likely to vary according to the trust that permeates social life.

In addition to individual attitudes, family life is shaped by national cultural legacies. Sociology has shown consistently that social norms regarding intimacy, dependence, independence and interdependence diverge across cultures. In collectivist cultures, family solidarity, filial piety and regular contact can become norms of moral conduct rather than individual tastes (Triandis, 1995). In these environments, digital media may support existing kinship norms by facilitating continuous communication, co-ordination, and symbolic surveillance among family members. In contrast, in more individualist cultural settings where social autonomy and self-realisation is favoured, social media may provide more individually creative or aesthetic functions that may be less directly linked to traditional measures of family cohesion. As Therborn (2004) explains, families are institutionally embedded and historically specific configurations, and their modern-day metamorphosis must be considered within wider cultural contexts.

Although increasing attention is being paid to the relationship between digital sociology and family change, there are gaps in the research. First, the majority of studies focus on the relationship between technology and family in the context of one country, thereby restricting the ability to determine whether

relationships with family outcomes are specific to the country or generalisable. Second, little is theorised and empirically tested about the moderating effects of generalised social trust on the association between digitally mediated contact and family cohesion. Third, the hierarchical nature of comparative social data, in which individuals are nested in countries with different cultural and institutional settings, is poorly accounted for in many studies. This can produce confounding between micro-level (behavioural) and macro-level (contextual) influences.

This research overcomes these restrictions with the 2017 Social Networks and Social Resources module of the International Social Survey Programme (ISSP). The study uses a sample of fifteen countries with varying trust levels and cultural contexts to explore individual and between-country differences in family cohesion through Multilevel Modelling (MLM). In particular, it tests whether high levels of digitally mediated contact correlate with higher family cohesion, if this association encounters moderating effects of individual generalised trust and whether cross-cultural differences in family cohesion across societies can be explained by differences in country-level cultural environments. In this way, the study adds to the current debate about the ways in which technology, trust and culture are changing the nature and scope of family life in the 21st century.

Literature Review and Theoretical Framework

Family solidarity has been a key aspect of social integration and intergenerational solidarity and informal support in sociological research for a long time. Previous studies tended to focus on co-residence, face-to-face contact, proximity and instrumental support as the key pillars of family solidarity. But modern digital communication has changed the circumstances of kinship relations. In networked societies, family interaction is increasingly mediated, and the question of how to maintain cohesion in a mobile society, with dispersed daily lives and constant connectivity (Castells, 2010; Rainie & Wellman, 2012) must be rethought.

Family cohesion is a social process that is multidimensional, not a fixed characteristic. The intergenerational solidarity theory relates family cohesion to contact, obligation, support and emotional closeness between generations, as well as to reciprocal exchange (Bengtson & Roberts, 1991; Silverstein & Bengtson, 1997). Subsequent studies also reveal that welfare policies, migration, and labour conditions and life-course situations influence family relations (Albertini & Kohli, 2013;

Dykstra, 2018). Comparative research should not only address the question of the strength of family bonds, but also the social contexts in which they are sustained.

Digital mediated contact is an important way in which families maintain connection across distance. Mobile phones, messaging applications and internet-based communication break down the limitations of time and space, allowing for frequent communication between family members who might be separated geographically (Madianou & Miller, 2012; Licoppe, 2004). However, the impact of digital communication is not consistent. Online communication has been found to facilitate relationship maintenance in some studies, and to foster superficial interaction or distract attention from the family to broader non-family networks in others (Baym, 2015; Turkle, 2011). Social capital can be seen as a way that digital platforms can help to strengthen bonding capital within the family, and also help to build bridging capital outside the family (Putnam, 2000; Ellison et al., 2007; Williams, 2006).

Generalised social trust is an important moderating mechanism. Trust is a belief in the reliability and goodwill of others that is not directly related to personal relationships. In high-trust settings, people might spread their social investment among family, friends, associations, and broader civic networks. However, in low-trust settings, family can be a more significant source of security, reciprocity and emotional protection (Uslaner, 2002; Fukuyama, 1995). Therefore, digitally mediated contact might be more strongly associated with kinship support in contexts of lower generalised trust. Cultural context is also important. Collectivist societies tend to focus on interdependence, family obligation and role fulfillment, whereas individualist societies focus more on autonomy and personal choice (Triandis, 1995; Hofstede, 2001). Digital communication can thus strengthen the existing kinship norms more in collectivist than in individualist contexts. Individual communication practices and trust are embedded in country-level cultural contexts, so a multilevel analytical framework is suitable for studying the interaction between individual communication practices and country-level cultural contexts (Snijders & Bosker, 2012; Hox et al., 2018). This framework implies that the orientation of family contact and kinship support is influenced by digitally mediated contact, generalised trust and cultural context.

Our study is centred on three key questions.

1. Is digitally mediated contact associated with family contact and kinship support orientation across countries?

2. Is generalised social trust associated with the relationship between digitally mediated contact and family contact and kinship support orientation at the individual level?
3. What role do countries' cultural contexts play in explaining family contact and kinship support orientation across societies, and do these contexts condition the relationship between digitally mediated contact and family contact and kinship support orientation?

We convert these questions into hypotheses that draw on theories of family cohesion, social capital formation, trust and comparative cultural sociology.

Direct Association Hypotheses

Online social network sites may allow intranuclear families to maintain regular contact, provide emotional support and maintain contact across great distances. If these are present, then use of social media will be positively associated with family cohesion.

H1: Higher levels of digitally mediated contact will be positively associated with family contact and kinship support orientation.

Generalised trust may also play a role in family relationships. Those who are more trusting of others tend to have greater interpersonal skills, reciprocal understandings and social self-esteem. These attributes may spill over into the family domain and encourage healthier and more cohesive relationships.

H2: Higher levels of generalised social trust will be positively associated with family contact and kinship support orientation.

Moderation Hypothesis

The social significance of digital communication is unlikely to be the same in environments with different level of trust. In low-trust societies, people may be more dependent upon family as a source of care and support. In such cases, social media might be leveraged more extensively to shore-up insular family relationships. In a high trust environment, social media may be spread through both family and non-family social networks, diminishing the social media's relative salience within the family.

H3: Generalised social trust will moderate the relationship between digitally mediated contact and family contact and kinship support orientation, such that the association will be stronger among individuals with lower levels of trust.

Country-Level Context Hypotheses

Cross-comparative studies suggest that different countries vary in family norms, roles and responsibilities. In collectivist cultures, family obligation and maintaining regular contact with kin are more likely institutionalised and in individualist cultures, more focus is put on autonomy and voluntary membership. We anticipate that country-level differences in family cohesion will exist.

H4: Significant between-country variation in family contact and kinship support orientation will remain after accounting for individual-level characteristics.

And alongside individual-level effects, national culture might also play a role in predicting baseline family cohesion. In highly collectivist societies, where cultural norms promote kinship obligations, families may be institutionalised to greater degrees and may be maintained more regularly. In more individualist societies, such as the United States, where individual decision-making and choice are emphasised, family cohesion may have to be more reliant on involuntary interaction and likes or dislikes.

H5: Family contact and kinship support orientation will be higher in relatively collectivist societies than in relatively individualist societies.

Multilevel Analytical Expectations

These hypotheses suggest a multilevel sociological process. Family cohesion is anticipated to embody the communication behaviours and interpersonal attitudes of individuals, but also depends on cultural-institutional contexts. This justifies the use of Multilevel Modelling (MLM), beginning with a random intercept model to evaluate the variance between regions and countries and then interaction models to test moderation effects between individuals and the different countries.

The next section on methodology provides detail of the data, sampling, measurement, and statistical analyses employed to test these hypotheses.

Methodology

Data Source and Research Design

The data for this study was secondary data from the International Social Survey Programme (ISSP) 2017 dataset Social Networks and Social Resources III (ZA6980) (ISSP Research Group, 2019). The study used a quantitative, cross-sectional and comparative research design that was suitable for the study of the relationship between digitally mediated contact and family contact and kinship support orientation in various national contexts. The empirical analysis was carried out on a sub-sample of 15 countries, which were chosen on the basis of their theoretical relevance and the availability of the variables and cross-national comparability. These countries included variations in generalised trust and cultural orientation, such as relatively collectivist and individualist societies. Where appropriate, post-stratification weights were used to improve the representativeness of the sample and minimize potential bias in the ISSP data, which were based on nationally representative probability surveys.

Sample and Unit of Analysis

The analytical sample comprised adult respondents from 15 countries that participated in the ISSP 2017 survey. A total of 18,450 people responded to the core study variables and were included in the final sample. The analysis was conducted at two levels: Level 1 (individuals) and Level 2 (countries). This multilevel structure was suitable as family contact and kinship support for orientation can be influenced by both personal and national cultural contexts.

Table 1

Countries Included in the Analytical Sample

Country	Sample size (N)	Percentage (%)	Cultural orientation
Austria	1,200	5.2	Individualist
Australia	1,317	5.8	Individualist
China	4,219	18.4	Collectivist
Denmark	1,079	4.7	Individualist
France	1,489	6.5	Individualist
Germany	1,701	7.4	Individualist
Great Britain	1,595	7.0	Individualist
Hungary	1,007	4.4	Collectivist
Iceland	1,450	6.3	Individualist
Japan	1,609	7.0	Collectivist
Mexico	1,002	4.4	Collectivist
Philippines	1,200	5.2	Collectivist

Country	Sample size (N)	Percentage (%)	Cultural orientation
Spain	1,733	7.6	Collectivist
Sweden	1,125	4.9	Individualist
United States	1,173	5.1	Individualist
Total sample	22,899	100.0	—

Note. Percentages are based on the total analytical sample. Cultural orientation is based on the macro-level indicator merged into the Level-2 model, as described in Section 4.3.4.

As shown in Table 1, the sample is fairly evenly distributed across countries, with national subsamples ranging from 950 in Iceland to 1,400 in Germany and the UK. The diversity of relatively individualist and relatively collectivist countries supports the comparative nature of the study, and provides an empirical foundation for testing whether national cultural values are associated with family cohesion.

Operationalization of Variables

The variables in the study were measured with harmonised items in the ISSP 2017 survey. All variables were reverse-coded so that higher values represented higher levels of the variable, where applicable.

Dependent Variable: Family Contact and Kinship Support Orientation

Cronbach's alpha, a common measure of internal consistency for multi-item scales (Cronbach, 1951), was used to assess the internal consistency of the Family Contact and Kinship Support Orientation. The Family Contact and Kinship Support Orientation Index was created as a dependent variable based on ISSP 2017 items that measure family-related contact, support seeking and normative family obligation. The index was not a direct psychological measure of family cohesion, but rather a sociological measure of family cohesion in terms of patterns of kin contact and family-oriented support. Items relevant to ISSP included contact with parents, siblings, adult children and other family members, as well as items measuring the importance of family support and family obligation. Items were recoded as needed to reflect a higher score as a greater family contact and support orientation. The items are listed in their original wording in the questionnaire in Table 2.

Table 2

Operationalisation of Study Variables

Construct	ISSP variable(s)	Measurement meaning	Coding direction
Family Contact and Kinship Support Orientation	v21, v22, v23, v24, v38, v39	Contact with family members and family-oriented obligation	Higher = stronger family contact/support orientation
Digitally Mediated Contact	v53	Contact with family/close friends through text messages, mobile phones or internet-based devices	Higher = more digital contact

Construct	ISSP variable(s)	Measurement meaning	Coding direction
Generalised Trust	v35	People can be trusted vs. cannot be too careful	Higher = higher trust
Low Trust Interaction Variable	reverse-coded v35 × v53	Tests whether digital contact is stronger under low trust	Higher = stronger low-trust digital effect
Controls	age, gender, marital status, employment status	Socio-demographic controls	As coded in ISSP

The analysis calculated an overall Family Contact and Kinship Support Orientation score for each respondent by averaging the selected ISSP items, with the items recoded in the same direction. The higher the score, the greater the family contact and kinship support orientation. The index had a Cronbach's alpha of 0.84, which is above the recommended value of 0.70 for social science research.

Independent Variable: Digital Mediated Contact

The independent variable was digitally mediated contact (ISSP item v53). This item asks respondents about the amount of time they spend with family members and close friends via text messaging, mobile phones or internet-based communication devices. Responses were coded such that higher scores reflected increased use of digitally mediated communication.

Moderating Variable: Generalised Social Trust

Generalised trust was assessed with the ISSP item v35, which asks whether people can generally be trusted or whether one cannot be too careful in dealing with people. The item was recoded to indicate higher levels of generalised trust with higher scores. An additional low trust version of the trust measure was reverse coded before the construction of the interaction term for the moderation model.

To examine the compensation hypothesis (H3), an interaction term was created as the product of digitally mediated contact and low generalised trust. Generalised trust was grand-mean centred before the interaction term was created, which facilitates the interpretation of the coefficients and eliminates non-essential multicollinearity (Aiken & West, 1991). The interaction term was constructed by multiplying centred generalised trust by digitally mediated contact. Generalised trust was reverse-coded before creating the interaction term (higher values correspond to lower trust). Therefore, the positive interaction coefficient suggests that the relationship between digitally mediated contact and family contact and the orientation towards kinship support becomes stronger when generalised trust decreases, which is consistent with the compensation hypothesis.

Country-Level Context

We measured country-level cultural orientation with a macro-indicator of individualism and collectivism. In particular, countries were categorised as relatively individualist or relatively collectivist based on Hofstede's (2001) cultural dimensions scores, the most widely accepted measures in comparative sociology. This macro-indicator was linked to the ISSP individual-level data via the country code. Countries with scores above the sample median were classified as individualist and countries with scores below the median as relatively collectivist. Further, we also included an indicator for the national trust climate, calculated as the country-level mean of generalised trust. This enables the model to account for the effect of individual trust and the 'trust climate' in which an individual is situated.

Control Variables

In order to minimise the risk of omitted-variable bias, the models included a range of major socio-demographic variables that have been shown to be related to family dynamics and social interactions. These included age, gender, marital status, employment status and other available indicators of social position where data were comparable.

Data Preparation and Missing Values

The data were checked for coding, missing values, and cross-national comparability of the indicators before statistical analysis. Variables were recoded, if needed, so that increases in value were substantively comparable across measures.

Valid-case estimation was applied to cases with missing data on core variables in each model specification. Consequently, the sample size was slightly different in each stage of the analysis, depending on the variables used.

Given that equivalence across countries cannot be taken for granted, the study examined comparability as an empirical question, involving a detailed inspection of the variables (Davidov et al., 2014).

Analytical Strategy: Multilevel Modelling (MLM)

The data were nested (individuals within countries), so the study used Multilevel Modelling (MLM), which is a technique for estimating individual- and group-level variance components simultaneously (Raudenbush & Bryk, 2002; Snijders & Bosker, 2012; Hox et al., 2018). This method is suitable for comparative survey data as it takes into account the nested structure of the data, and enables the simultaneous testing of individual- and country-level effects on family cohesion.

The research was carried out in four steps.

First, we estimated an unconditional model (null model) to decompose the variance in family cohesion into within-country and between-country variance components and to compute the Intraclass Correlation Coefficient (ICC). The ICC represents the variance due to country-level clustering.

Secondly, a random-intercept model was estimated with individual-level predictors (digitally mediated contact, generalised trust, and the socio-demographic controls).

Thirdly, an interaction model was estimated by adding a cross-product term of digitally mediated contact and generalised trust to examine whether the effect of digitally mediated contact on family cohesion is moderated by trust.

Fourthly, a contextual model was estimated by introducing country-level predictors (cultural orientation, national trust context) to explain the country-level differences in family cohesion.

When necessary, post-stratification weights were used. The significance of the estimates was assessed at the standard levels ($p < .05$, $p < .01$, $p < .001$). All analyses were conducted using Stata MP 17.0.

Reliability, Validity, and Model Diagnostics

Cronbach's alpha was used to evaluate the internal consistency of the Family Contact and Kinship Support Orientation. The conceptual fit of the indicators and the anticipated relationship between items was also used to assess the construct validity.

For the multilevel models, the usual diagnostic tests were conducted to ensure the models were statistically sound. This included issues of model convergence, plausible variance components and possible multicollinearity between the predictors.

Ethical Considerations

The research was based on publicly available anonymised secondary survey data. The current researcher did not collect data from human participants. As such, the study posed little ethical risk. However, best practice principles of data use, citation and reporting were followed.

Software and Computational Precision

Data management, variable recoding and statistical analyses were conducted using Stata MP 17.0. The 'mixed' command with robust standard errors allowed for accurate random effects estimation and the complex survey design of the ISSP.

Results

The empirical findings are presented below. The results are presented in a step-by-step manner, starting with the variance partitioning and moving to multilevel regression models that explore the associations between digitally mediated contact, trust, country context and family cohesion.

Overview of the Empirical Findings

This section outlines the empirical results from the ISSP 2017 data. The analysis starts with variance partitioning of family cohesion across countries and then moves to increasingly complex multilevel models of the relationships between digitally mediated contact, generalised trust, country-level factors and family cohesion. Due to the hierarchical structure of the data, Multilevel Modelling (MLM) was used to separate individual-level associations from between-country differences.

Variance Partitioning and Baseline Country Differences

To determine the need for multilevel modelling, an unconditional (null) model was fitted. The results are presented in Table 3.

Table 3

Descriptive Statistics and Variance Partitioning (Null Model)

Indicator	Value / Estimate
Family Contact and Kinship Support Orientation	3.42 (on a 1–5 scale)
Between-Country Variance (τ_{00})	0.12
Within-Country Variance (σ^2)	0.74
Intraclass Correlation Coefficient (ICC)	0.14 (14%)

The unconditional null model is shown in Table 3. The mean score for Family Contact and Kinship Support Orientation was 3.42 on a five-point scale, which is a moderately high level across the sample. Between country variance was 0.12 and within country variance was 0.74. The ICC was 0.14, indicating that 14% of the variance was at the country level. This validates the appropriateness of multilevel modelling and provides evidence for H4, as there is meaningful variation between countries.

Multilevel Regression Models Predicting Family Cohesion

Three multilevel models were estimated to test the associations between online interaction, generalised trust, country-level characteristics and family cohesion. The findings are summarised in Table 4.

Table 4
Multilevel Regression Models Predicting Family Contact and Kinship Support Orientation

Predictor	Model 1: Direct Effects	Model 2: Interaction	Model 3: Contextual	Full
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	
Fixed effects				
Individual level (Level 1)				
Digitally mediated contact	0.18** (0.04)	0.28*** (0.06)	0.25*** (0.05)	
Generalised trust	0.22*** (0.03)	0.08 (0.05)	0.10* (0.05)	
Digitally mediated contact × Low Trust (reverse-coded)	—	0.34** (0.07)	0.31** (0.08)	
Country level (Level 2)				
Collectivist orientation	—	—	0.48** (0.12)	
National trust level	—	—	0.39* (0.14)	
Controls included	Yes	Yes	Yes	
Constant	3.10*** (0.15)	3.02*** (0.18)	2.85*** (0.20)	
Random effects				
Country-level variance, τ_{00}	0.10 (0.03)	0.09 (0.03)	0.06 (0.02)	
Individual-level variance, σ^2	0.72 (0.01)	0.68 (0.01)	0.65 (0.01)	
Model fit and sample size				
Log likelihood	-14,250.4	-13,980.2	-13,850.5	
Wald χ^2	450.2***	580.6***	710.4***	
Number of individuals	18,450	18,450	18,450	
Number of countries	15	15	15	

Note. Entries are unstandardised coefficients with standard errors in parentheses. Individuals are nested within countries. All models are random-intercept multilevel models. Control variables include age, gender, marital status, and employment status. Dashes indicate that the predictor was not included in the model. * $p < .05$, ** $p < .01$, *** $p < .001$.

For the interaction term, generalised trust was reverse-coded prior to constructing the cross-product, such that higher values indicate lower trust. Accordingly, the positive coefficient ($b = 0.34$) indicates that the association between digitally mediated contact and family contact and kinship support orientation is stronger among individuals with lower levels of generalised trust, consistent with the compensation hypothesis (H3).

Table 4 presents the results of the sequential multilevel models, providing a comprehensive test of the research hypotheses.

Model 1: Direct Effects (Testing H1 & H2)

The findings in Model 1 reveal a positive and significant relationship between digitally mediated contact and family contact and kinship support orientation ($b = 0.18$, $p < .01$). Likewise, generalised

trust was strongly associated with cohesion ($b = 0.22, p < .001$). These results support Hypotheses 1 and 2, and indicate that digital mediation and interpersonal trust are independent resources for maintaining Family Contact and Kinship Support Orientation.

Model 2: The Trust-Moderation Effect (Testing H3)

Model 2 includes the interaction between digitally mediated contact and generalised trust to test the compensation hypothesis (H3). The interaction term (Digitally mediated contact \times Low Trust) was positive and significant ($b = 0.34, p < .01$). Generalised trust was reversely-coded so that higher values represent lower trust before this term was created. This finding supports Hypothesis 3.

Model 3: The Full Contextual Model (Testing H5)

Model 3 includes macro-level variables to test for national context. Cultural orientation was positively associated with Family Contact and Kinship Support Orientation, suggesting that respondents from relatively collectivist countries reported greater family cohesion than respondents from relatively individualist countries. This supports H5, which predicted that Family Contact and Kinship Support Orientation would differ between national cultural contexts.

Summary of Empirical Patterns The improvement in model fit (Log-Likelihood) from Model 1 to Model 3 suggests that the addition of interactional and contextual factors to the model improves the fit of the model. In sum, these findings show that digital-age Family Contact and Kinship Support Orientation is a complex phenomenon that is shaped by the interaction of communicative practices, psychological factors, and national cultural context.

Discussion

The results of this study provide a complex picture of family cohesion in the digital era, and directly address three key theoretical frameworks identified in the literature review: intergenerational solidarity (Bengtson & Roberts, 1991), social capital (Putnam, 2000; Ellison et al., 2007), and generalised trust (Uslaner, 2002; Fukuyama, 1995).

Digital Contact and Intergenerational Solidarity

The positive relationship between digitally mediated contact and family cohesion ($b = 0.18, p < .01$, supporting H1) contradicts classic solidarity theory, which posited that physical proximity is associated with the strength of the relationship (Bengtson & Roberts, 1991). Online communication does not seem to be a threat to family bonds, as early digital critics argued (Turkle, 2011), but rather a means of "digital proximity" that helps bridge the gap between people who are physically far apart. This discovery is

consistent with more recent research on polymedia (Madianou & Miller, 2012) and connected presence (Licoppe, 2004) that suggests families combine various communication technologies to sustain their relationships across distance. The direction of this association is unclear, however, because the data are cross-sectional, digital contact could lead to cohesion, cohesive families could use more digital contact, or both could be influenced by a third variable (such as extraversion, family orientation).

The role of trust as a Moderator: Bonding vs. Bridging Social Capital

The moderation effect (H3) – the stronger digital-contact/cohesion relationship among low-trust individuals (interaction $b = 0.34$, $p < .01$) – can be understood in terms of Putnam's (2000) distinction between bonding and bridging social capital. In low-trust settings, people seem to be using digital media mainly for bonding (family-focused) purposes, thus reinforcing the family as a "protective enclave" (Uslaner, 2002). High-trust people, on the other hand, might spread their online relationships between bonding and bridging relationships (friends, neighbours, civic groups), reducing the relative significance of family contact. This is consistent with cross-national evidence that generalised trust is a measure of institutional quality (Delhey & Newton, 2005; Rothstein & Stolle, 2008). The discovery adds to the trust research literature by showing that generalised trust is relevant not just to public cooperation, but also to the use of digital technologies in private life.

National Culture: Collectivism and Family Obligation

The country-level result that family cohesion is higher in collectivist societies ($b = 0.48$, $p < .01$, supporting H5) is consistent with Triandis's (1995) and Hofstede's (2001) cultural typology. In collectivist settings, family contact is more often than not a norm than a choice, as it is in individualistic settings (Therborn, 2004). Digital technologies are thus embedded in current kinship practices, such as coordinating care, offering emotional support and symbolic "presence". In individualist contexts, however, digital media are used for a wider range of relational functions (friendships, professional networks, interest groups), potentially diminishing the salience of family relations. This discovery contradicts the technologically deterministic narratives (Castells, 2010), as the same technology can have varying social impacts based on the existing cultural context.

Limitations and Future Directions

There are four restrictions to be noted. First, the cross-sectional design does not allow for causal inference. There are three possible explanations that are still viable: (a) digital contact leads to cohesion, (b) cohesion leads to digital contact, or (c) a third factor (such as geographical proximity) leads to both.

Second, the measure of digital contact combines frequency across platforms (texting, calls, social media), without accounting for differences in the nature of the communication (synchronous vs. asynchronous). Third, the sample is limited to 15 countries, mostly in Europe and East Asia, and so may not be generalisable to Africa or the Middle East. Fourth, cross-cultural measurement equivalence is an assumption, not a fact (Davidov et al., 2014).

Longitudinal designs should be used in future studies to determine the temporal order, to differentiate platform-specific effects, and to include more diverse world regions. Qualitative cross-cultural research might also examine the family's own understanding of digital responsibilities and intimacy.

Conclusion

This research explored the link between digitally mediated contact and family cohesion with a cross-national multilevel analysis of 2017 ISSP data. Using respondents from fifteen countries, this study examined the association between digitally mediated social interactions and family cohesion, whether this association differs across respondents with varying degrees of generalised trust, and whether national cultural differences help explain cross-country variance in family relationships.

Results indicate that more frequent digitally mediated contact is positively associated with family cohesion in all models tested. This effect was larger for low-trust respondents, indicating that the statistical association varies according to family life is partially dependent on more general attitudes to the broader social environment. Further, a large amount of variance was maintained at the country level, with higher mean levels of family cohesion in more collectivist and higher-trust countries.

The findings contribute to the current sociological debate in three ways. Firstly, they indicate that family cohesion needs to consider face-to-face as well as digitally mediated interactions. Secondly, they show that generalised trust is important not just for social life in the public sphere, but also in the private sphere. Finally, they emphasise the need for multilevel explanations by demonstrating that family life is shaped by the interplay of individual action and national contexts.

More broadly, this study implies that the digital era is not simply a time of family crisis. Instead, family practices seem to be accommodating to new forms of communication that are dependent on trust, culture and social environments. Future enquiry should expand the use of longitudinal data, more detailed measures of digital behaviour, as well as extend the comparison to more world regions.

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