Abstract

Social group membership and its social-relational corollaries – e.g., social contact, trust, and support – is prophylactic for health. Research has tended to focus on how direct social interactions between members of small-scale groups (i.e., a local sports team or community group) are conducive to positive health outcomes. The current study provides evidence from a longitudinal cross-cultural sample (N = 6,748; 18 countries/societies) that the prophylactic effect of group membership is not isolated to small-scale groups, and that members of groups do not have to directly interact, or in fact know of each other to benefit from membership. Our longitudinal analyses suggest that national identification (strength of association with the nation state in which an individual resides) predicts lower anxiety and improved health; national identification was in fact almost as positively predictive of health status as anxiety was negatively predictive. The findings indicate that identification with large-scale groups, like small-scale groups, is palliative, and are discussed in terms of globalisation and banal nationalism.

Introduction

Social groups can have a prophylactic effect on peoples' wellbeing. Multiple aspects of social groups endow individuals with this benefit – including social contact (e.g., Cohen, 2004), trust (e.g., Subramanian, Kim, & Kawachi, 2002) and support (e.g., Schwarzer & Leppin, 1991). However, one of the most remarkable findings in the literature is that members of groups do not actually have to interact with one another for their wellbeing to benefit – merely identifying with the groups to which one belongs is sufficient (see Haslam, Haslam, Dingle, Jetten, & Cruwys, 2018; Jetten, Haslam, & Haslam, 2012; Khan, Hopkins, Tewari, Srinivasan, Reicher, & Ozakinci, 2014).

The social identity approach (for an overview see Reicher, Spears, & Haslam, 2018), offers an account for why this is the case. According to this theory, knowing that others identify with the group(s) with which one belongs leads to a sense of shared social identity, and as a result group members are more likely to trust, support, and cooperate with one another (e.g., Barreto & Ellemers, 2000; De Cremer, 2002; Haslam & Reicher, 2006; Kramer, Hanna, Su, & Wei, 2001; Reicher & Haslam, 2006; Tyler & Blader, 2000, 2002, 2003). The theoretical approach posits that it is this sense of shared social identity, and resultant transformation of social relations, which affect wellbeing – in part via primary and secondary stress appraisals (Lazarus & Folkman, 1984). From this perspective, experiences of stress are influenced by the values and norms of the group(s) to which one belongs (e.g., Levine & Reicher, 1996; St Claire, Clift, & Dumbleton, 2008). On the other hand, when stress is experienced, the accessibility to social support, afforded by belonging to and identifying with a group, or groups, serves as a resource for coping (e.g., Haslam, O'Brien, Jetten, & Vormedal, 2005; Haslam & Reicher, 2006; Reicher & Haslam, 2006). Taken together, the

social identity approach to health and wellbeing is referred to as the 'social cure' (Haslam, Haslam, Dingle, Jetten, & Cruwys, 2018; Jetten, Haslam, & Haslam, 2011).

The intragroup phenomenon of perceiving and experiencing kinship with people that one has not interacted with is one that has parallels to the postmodernist notion of nations as *imagined communities* (Anderson, 1983). Most citizens of even the smallest countries will never meet or know most of their fellow citizens – yet they will be bound and act together on the basis of a shared sense of national identification. The study of national identity in the field of psychology resonates with the notion of imagined communities. The social identity approach examines the phenomenon at two levels of analysis: (1) the representation, contestation, and mobilisation of nationalism and national identity by identity entrepreneurs (e.g., Khan, Svensson, Jogdand, & Liu, 2018; Reicher & Hopkins, 2001); and (2) the nature, strength, and implications of subjective identification with the nation (e.g., Blank & Schmidt, 2003; Fleischmann & Phalet, 2018; Huddy & Khatib, 2007; Kanas & Martinovic, 2017; Mummendey, Klink & Brown, 2001; Pehrson, Brown, & Zagefka, 2009; Pehrson, Vignoles, & Brown, 2009; Verkuyten, 2009). That is, the approach accounts for both political and individual imaginings of the nation. The focus of the present study is at the second level of analysis in that it operationalises national identification as the strength by which individuals identify with the nation, devoid of ideological connotations – it arguably represents cognitive attachment to the nation.

Although the psychological literature is rife with empirical accounts of the intergroup consequences of national identification in a variety of contexts (e.g., Blank & Schmidt, 2003; Fleischmann & Phalet, 2018; Huddy & Khatib, 2007; Kanas & Martinovic, 2017; Mummendey, Klink, & Brown, 2001; Pehrson, Brown, & Zagefka, 2009; Pehrson, Vignoles, & Brown, 2009; Verkuyten, 2009), its implications for wellbeing have largely been

ignored. For that matter, research guided by the social identity approach has tended to focus on the wellbeing implications of belonging to and identifying with small- (e.g., family, work, and treatment) as opposed to large-scale (e.g., national) social categories (for exceptions, see Greenaway, Haslam, Branscombe, Ysseldyk, & Heldreth, 2015; Khan et al., 2014). However, there exists a marginal body of research evidencing an association between different operationalisations of national attachment and wellbeing. For example, Ha and Jang (2015) found that national pride but not national identity was associated with happiness in a nationally representative sample from South Korea, whereas Zdrenka, Yogeeswaran, Stronge and Sibley (2015) observed a positive relationship between patriotism and quality of life in a nationally representative sample from New Zealand. These two studies were preceded by two interrelated multi-nation correlational studies demonstrating that satisfaction with one's nation predicted satisfaction with life in 128 countries (Morrison, Tay, & Diener, 2011), and that national pride and nationalism predicted subjective wellbeing in 31 countries (Reeskens & Wright, 2011).

It is important to highlight that the above studies predominately operationalised national attachment in terms of its affective (e.g., pride and satisfaction) and ideological dimensions (e.g., patriotism) as opposed to its cognitive dimension (i.e., identification); only Ha and Jang's (2015) research included a measure of national identification, and it was found to be unrelated to happiness (their main measure of 'wellbeing'). These operationalisations are in line with the literature, which conceptualises the cognitive, ideological, and affective dimensions of national attachment as distinct yet interrelated dimensions differentially associated with political beliefs and attitudes, prejudice, and happiness (e.g., Blank & Schmidt, 2003; Ha & Jang, 2015; Huddy & Khatib, 2007; Mummendey, Klink, & Brown, 2001; Schatz, Staub, & Lavine, 1999). For example, feeling

American is not contingent on support for a particular political ideology (Huddy & Khatib, 2007), and conservatives (versus liberals) tend to report higher levels of subjective wellbeing (e.g., Napier & Jost, 2008; Schlenker, Chambers, & Le, 2012). One explanation for why research to date has only uncovered a positive association between the affective and ideological (as opposed to cognitive) dimensions of national attachment and wellbeing is because these dimensions are more proximal to wellbeing, encapsulating positive emotions – and positive affect indeed impacts wellbeing over time (e.g., Fredrickson & Joiner, 2002).

Furthermore, existing studies on national attachment and wellbeing have so far only examined associations cross-sectionally as opposed to longitudinally. The most apparent limitation of cross-sectional data is that it does not allow for the modelling of change (or stability) and predictive direction over time. Being able to do so is particularly important as evidence suggests that wellbeing also impacts the extent to which individuals identify and engage with social groups (Miller, Wakefield, & Sani, 2017) – suggesting a bi-directional relationship.

Addressing these shortcomings in the literature, the present research set out to examine the relationship between national identity and wellbeing. The operationalisation of national identity specifically captured the cognitive dimension of national attachment (i.e., national identification), whereas wellbeing was assessed using clinically validated measures of mental and general health status. Data were collected longitudinally between two time-points, six months apart. The present research was also conducted cross-culturally with samples from both WEIRD and non-WEIRD countries (Western, Educated, Industrialised, Rich, Democratic; Henrich, Heine, & Norenzayan, 2010). To summarise, the research presented herein set out to examine the occurrence and nature of the association between

national identification and wellbeing, longitudinally, in a sample consisting of 6784 participants across 18 countries/societies.

Method

Sample and Procedure

Ethical approval for the research was provided by the XXX Human Ethics Committee: XXX Application XXX 16/31. The total sample consisted of 6784 participants from 18 countries/societies: Argentina (N = 268), Brazil (N = 237), China (N = 300), Estonia (N = 625), Germany (N = 529), Indonesia (N = 224), Italy (N = 473), Japan (N = 469), New Zealand (N = 489), Philippines (N = 108), Poland (N = 494), Russia (N = 429), South Korea (N = 430), Spain (N = 221), Taiwan (N = 256), Turkey (N = 236), United Kingdom (N = 548), and the United States (N = 412). The sampled countries/societies were selected because they represented a balance between WEIRD and non-WEIRD cultures (Henrich et al., 2010), which had online penetrations and participant panels enabling the collection of longitudinal data online. The percentage of females in the country/society samples ranged from 63% (China) to 43% (Italy), whereas the mean age ranged from 53 years (UK; SD = 14 years) to 37 years (Turkey; SD = 11 years). All participants were citizens of the countries/societies in which they were residing at the time of participating in the study. The specific sizes and demographic compositions of the samples are presented in Table 1. Data were collected by Nielsen, an international polling firm (for sampling details, see Anonymous, 2017): the first wave (T1) of data were collected in September 2015, whereas the second wave (T2) of data were collected in March 2016. Only cases with complete data at both time-points for all measures were included in the analyses presented herein. 'Attrition' from T1 to T2 (64% on average across the samples) does not represent participant dropout, but the proportion of

participants that were not contacted at T2 because of participant panel or financial constraints. That is, it was not either logistically possible to reach participants or it would have been too costly to recruit participants at two points. The survey was back-translated (Brislin, 1970) into the official language of the countries/societies in which it was administered.

Measures

National identity (NATID) was measured with four items derived from different studies assessing different facets of national identity and national identification strength:(1) '*Being [nationality] is very important to me*' (Citrin, Rheingold , & Green, 1990); (2) '*To what extent do you see yourself as a typical [nationality]*' (Huddy & Khatib, 2007); (3) '*The term [nationality] describes me well'* ; and (4) '*I identify with my nationality*' (Postmes, Haslam, & Jans, 2012). Responses to the four items were recorded on a seven-point Likert scale anchored by the endpoints '*completely disagree'* and '*completely agree*', respectively. Principal Axing Factoring (PAF; oblique rotation) indicated that the four items loaded onto one factor at both time-points, explaining 76% of the item variance at T1 and 78% at T2; the items were treated as one factor in the proceeding analyses.

Anxiety was assessed using the Generalised Anxiety Disorder Assessment (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2007; Plummer, Trepel, & McMillan, 2016). The GAD-7 is a widely used and validated instrument for screening generalised anxiety in clinical and non-clinical populations (see Löwe et al., 2008). As the name suggests the GAD-7 consists of seven items, and these items assess the two main criteria of generalised anxiety disorder as defined by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5): excessive anxiety and worry (e.g., '*worrying too much about different things*'*)* and difficulties controlling worries (e.g., '*not being able to stop or control worrying?*'). The items

asked participants to indicate how often that they had been bothered by a specific symptom over the last two weeks using a seven-point Likert scale anchored by the endpoints '*never*' and '*always*', respectively. Research into the psychometric properties of the GAD-7 indicate that its items load onto one factor (Löwe, Decker, Müller, Brähler, Schellberg, Herzog, & Herzberg, 2007). PAF (oblique rotation) corroborated that the items loaded onto one-factor at the both time-points, respectively explaining 68% and 72% of the item variance; the items were entered as one factor in the analyses.

Health status was assessed using two items of general self-rated health (GSRH), consistent with the approach to measuring self-rated health adopted by DeSalvo, Fisher, Bloser, Merrill, and Peabody (2006). Although the wording of single-item measures of health status may vary slightly, they have been found to predict a number of health-outcomes on par with or even better than multi-item and multi-factor instruments, including chronic physical conditions (e.g., Macias, Gold, Öngür, Cohen, & Panch, 2015), quality of life (DeSalvo et al., 2006), mortality (e.g., DeSalvo, Fan, McDonell, & Fihn, 2005), and prospective health expenditure (e.g., DeSalvo et al., 2009). The first item, GSRH-standard (GSRH-S), asked participants to answer a standard question about their health: '*How would you say your health is?*'. The second question, GSRH-comparative (GSRH-C), accounted for the age specificity of health, and asked participants to answer the following question: '*Compared to others your age, how would you say your health is?*'; the GSRH-C question specifically accounts for appraisals of health being with reference to participants' health at earlier stages of their lives, or others that may be perceived as having a better health status due to their age. Participants responded to both questions on seven-point Likert scales, respectively anchored by the endpoints '*very poor*' and '*excellent*'. PAF (oblique rotation)

indicated that the two items loaded onto one factor, explaining 87% of the item variance at T1 and 91% at T2; the two items were analysed as one factor.

Age and gender were included as covariate variables in the inferential analysis presented in the proceeding section.

The descriptive and reliability statistics for the measures in every country/society sample are presented in Table 1; the correlations between the measures are presented in Table 2.

INSERT TABLE 1 and TABLE 2 HERE

Analysis Plan

The first phase of the analysis involved a multigroup analysis (MGA) that examined if the measures specified as latent variables – i.e., NATID and GAD-7 – were metrically invariant across the 18 countries/societies, which would indicate that the relationships between the observed variables (i.e., the individual items) and the latent variables (i.e., the variables composed by the items).

The second phase of the analysis involved modelling the bi-directional associations between the measures across time in a cross-lagged panel model; it also involved examining whether the associations observed in the cross-lagged panel model were invariant across the 18 countries/societies. There were multiple advantages of addressing the research question with a cross-lagged panel model. First, the method enabled the examination of the effects of national identity upon wellbeing, and wellbeing upon national identity, over time, in the one and same model. Second, it allowed us to examine reciprocal effects of national identity and wellbeing over time while controlling for autoregressive effects. Third, it

allowed us to analyse the constructs assessed with multiple items as latent variables, and thereby account for measurement error. Fourth, it enabled us to examine whether the associations observed in the model were equivalent across the 18 countries/societies.

The two phases of the analysis were conducted using the lavaan package (Rosseel, 2012) in R (R Core Team, 2016).

Results

Testing for Metric Invariance

The first step of the MGA involved establishing a baseline model – this model is referred to as the configural model. Parameters are allowed to vary freely between samples in the configural model, and it is specified in order to establish if there is a good fit in the factor between samples before any constraints are imposed. The configural model was then used as a baseline for comparisons with nested models in which parameters were increasingly constrained (see Milfont & Fischer, 2010). The Comparative Fit Index (CFI), the Root Mean Squared Error of Approximation (RMSEA), and the Standardised Root Mean Squared Residual (SRMR) were used evaluate model fit. Values below .90 for the CFI and above .10 for the RMSEA and SRMR indicate unacceptable fit between a specified model and observed data (MacCallum, Widaman, Preacher, & Hong, 2001). We do not rely on the chi-square value in evaluating model fit because of its sensitivity to large sample sizes (> 200; Kline, 2005). Models A and B tested the factor structures of NATID and GAD-7 atT1 and T2 respectively. Table 3 shows that configural invariance could be observed for the models.

The second step of the MGA procedure involved constraining the measurement weights in the models. The fit indices of the constrained models are then compared with the fit indices of the respective configural models. Cheung and Rensvold (2002) have

recommended that CFI values of less than .010 and RMSEA values of less .015 between each progressively constrained model with each respectively preceding model (beginning with the unconstrained model) suggests that the null hypothesis of invariance should be accepted. Following these recommendations, Table 3 shows that metric invariance could be inferred – that is, participants responded comparably to the NATID and GAD-7 items across the 18 country/society samples.

INSERT TABLE 3 HERE

Cross-Lagged Panel Modelling

The cross-lagged panel model specified the T1 measurements as exogenous variables (i.e., the predictor variables), and the T2 measurements as endogenous variables (i.e., the predicted variables). Every endogenous variable (i.e., T2 variable) was in turn specified to be predicted by every exogenous variable (i.e., T1 variable). The exogenous variables, endogenous variables, and error variances for the items across time (e.g., NATID item 1 with NATID item 2, and GAD-7 item 1 with GAD-7 item 2, and so forth) were respectively specified to co-vary freely (see Burkholder & Harlow, 2003; Farrell, 1994). In addition, age and gender were entered as covariates into the model – specified as exogenous variables predicting the endogenous variables. This means that any effect observed of a T1 onto a T2 variable would be over and above any influence exerted by age and gender.

Like the tests for measurement invariance, the cross-lagged panel model was analysed using the lavaan package (Rosseel, 2012) in R (R Core Team, 2016). The fit indices for the model indicated a good fit between the model specification and the observed data: $\chi 2$= (270) 5828.512, CFI = .963, RMSEA = .055 (90% CI [.054, .056]), SRMR = .085. The

standardised regression weights and covariances in the model are shown in Table 4, whereas Figure 1 presents a simplified model illustrating the effects of the T1 onto the T2 variables; non-significant effects are denoted by dotted lines in the figure.

Table 4 and Figure 1 show that while national identity was not affected by either anxiety nor health status over time, national identity had a negative and significant effect on anxiety and positive and significant effect on health status over time. All of the autoregressive effects were positive and significant, and there were negative and negative reciprocal effects between anxiety and health status over time.

Regarding the covariates, age was associated with national identity and anxiety but not health status, with older participants exhibiting higher levels of national identity and lower anxiety over time. Female participants reported higher levels of anxiety, yet also higher health status, over time[1].

Finally, we examined measurement invariance in the cross-lagged panel model. The same procedure described in the preceding sub-section was followed (Milfont & Fischer, 2010) using the lavaan package (Rosseel, 2012), and involved constraining the measurement weights in the model across the country/society samples. The fit indices resulting from this procedure indicated acceptable fit between the observed data and both the configural model ($\chi 2$= (4860) 13183.108, CFI = .945, RMSEA = .068 (90% CI [.066, .069]), SRMR = .091) and constrained model ($\chi 2$= (5166) 14465.203, CFI = .938, RMSEA = .069 (90% CI [.068, .071]), SRMR = .099). The CFI and RMSEA differences of less than .010 and .015 respectively denoted metric equivalence – that is, that the model was equivalent across countries/societies (Cheung & Rensvold, 2002).

[1] The standardised regression weights for every country/society are available in the supplementary materials - https://osf.io/sbz7x/?view_only=72511614d43f407cbe0cd11601433dda

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INSERT FIGURE 1 HERE

INSERT TABLE 4 HERE

Discussion

The present study examined the longitudinal associations between national identity and wellbeing across 18 countries/societies using a cross-lagged panel design. The results indicated that the relationship between national identity and wellbeing was unidirectional as opposed to bi-directional: national identity predicted but was not predicted by anxiety and health status over time. The relationship was upheld while controlling for participant age and gender. The most striking finding was that national identity had an almost as palliative effect on health status as anxiety had a detrimental effect on health status over time.

These findings complement and extend past research that has demonstrated how identifying with one's group memberships can be beneficial for wellbeing. More specifically, the findings provide empirical evidence in support of the generalisability of the relationship between identification and health and wellbeing to large-scale groups. The benefits of group membership and identification to wellbeing are thus not isolated to small-scale groups and networks within which members are able to interact with one another directly – on the contrary, people similarly reap benefits identifying with the nations to which they belong.

The findings lend themselves to a wide range of interpretations. Most importantly, they beg the question as to why identifying with large groups, within which it is unlikely, if not impossible, to meet and interact with every other member, promotes wellbeing. Billig (1995) argues that national identity plays a greater part in the day-to-day lives of people than is readily apparent. He suggests that this is because national identity is perpetuated in banal everyday practices, for example, while watching an ethnocentric weather report, or while drinking a particular tea blend popular among locals. This salience begets a sense of security by intimating how one is embedded in a context within which other (imagined) people also share the sense of belongingness and identity. This shared identity in turn has the potential to foster trust, cooperation, and support, both in principle and practice (e.g., Haslam & Reicher, 2006). That is, the *prospect* of being supported by fellow citizens is as prophylactic as the *actuality* of being supported by fellow citizens (e.g., Haslam et al., 2005).

Other than engendering pro-sociality, group membership and identification fulfils belongingness needs, which in turn affects wellbeing (e.g., Baumeister & Leary, 1995; Greenaway, Cruwys, Haslam, & Jetten, 2015). These findings have parallels with theorisations about the relationship between ontological security, or insecurity, and the rise of nationalism. Kinnvall (2004) argues that ontological insecurity, mainly brought upon by rapid globalisation and modernity, draws people(s) to nationalism, as it reduces existential insecurity and anxiety (see also Ariely, 2012). The findings reported here can be interpreted against this backdrop: identification with large-scale groups arguably provides stable anchors in an otherwise rapidly changing world.

However, speculation about what the findings mean, and the processes by which they are underpinned, warrants some caution. Most importantly, the magnitude of the effects observed in this study were small – explaining only between two and three percent

of variance. Without accounting for variables known to interact with both national identity and wellbeing (e.g., political ideology and socioeconomic status), their robustness cannot be entirely ascertained. Equally, the limitations of the research design pave the way for avenues of further research to corroborate and expand on the findings. On one hand, untangling which individual-level factors interact with the relationship between national identity and wellbeing can offer finer accounts of process. According to System Justification Theory (Jost & Banaji, 1994), the relationship is likely to be influenced by the extent to which the prevailing societal ethos and status quo within a country are perceived as being fair. The theory proposes that 'system justification' is palliative as it fulfils epistemic, existential, and relational needs, and research has indeed found it to have a positive impact on wellbeing across cultures over time (Vargas, Paez, Khan, Liu, & Gil de Zúñiga, 2018). Relatedly, political ideology is also a possible moderator. The inclusion of wider and more intricate operationalisations of national identification, capturing different meaning systems that people(s) associate in their identification with the nation, can determine if particular sets of beliefs explain the effect, or a greater proportion of the effect. Research has indeed shown that conservatives tend to experience higher levels of wellbeing (e.g., Napier & Jost, 2008; Schlenker, Chambers, & Le, 2012), and that the endorsement of civic nationalism is more strongly associated with wellbeing than ethnic nationalism (Reeskens & Wright, 2011).

Moving beyond subjective individual-level factors, integrating society-level factors would enable assessment of how the relationship interacts with objective macro-level conditions. For example, employing multilevel modelling, Worldwide Governance Indicators (WGI) produced by the World Bank could be examined to determine how societal governance (in terms of, for example, voice and accountability, government effectiveness, and control) affects national identification, wellbeing, and the relationship between the

two. Likewise, development indices, such as the Inequality-adjusted Human Development Index (IHDI) produced by the United Nations Development Programme (UNDP), could be integrated to determine if, when, and how the health, education, and income of a country affect the relationship between national identity and health. It would be reasonable to assume that national identity, at least in part, mediates the effect of societal indicators, such as GDP, quality of governance, and societal equality (e.g., Diener, Diener, & Diener, 1995). Likewise, and in line with theorisations presented earlier in this discussion, it would not be unreasonable to assume that the palliative function of national identity would be stronger in countries hampered by instability and deficiency – the relationship between national and life satisfaction has indeed been found to be stronger in poorer countries (Morrison et al., 2011).

While literature already recognises the impact of small-group and social-structural processes on health and wellbeing, the findings from this study suggest that the health and wellbeing of individuals and groups is structured by collective – psychological – identities, and that this phenomenon merits greater attention.

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Table 1

Descriptive and Reliability Statistics by Country/Society.

Country	*N*	Males (%)	Age	GAD-7 Time 1		GAD-7 Time 2		NATID Time 1		NATID Time 2		GSRH Time 1	GSRH Time 2
			M (*SD*)	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*M* (*SD*)
Argentina	268	47.39	43.68 (14.34)	3.28 (1.51)	.94	3.27 (1.43)	.94	5.28 (1.49)	.90	5.35 (1.37)	.90	5.40 (1.13)	5.12 (1.14)
Brazil	237	55.27	39.50 (12.24)	3.84 (1.31)	.91	4.04 (1.41)	.93	4.88 (1.66)	.94	4.88 (1.73)	.96	5.25 (1.28)	5.18 (1.23)
China	300	37.33	41.74 (12.49)	3.23 (1.08)	.90	3.08 (1.22)	.95	5.30 (1.24)	.92	5.29 (1.27)	.92	4.68 (1.13)	4.67 (1.15)
Estonia	625	48.48	50.16 (16.83)	2.88 (1.21)	.93	2.74 (1.18)	.93	5.78 (1.17)	.90	5.88 (1.11)	.89	4.71 (1.15)	4.74 (1.16)
Germany	529	54.25	47.84 (13.52)	3.21 (1.43)	.93	3.18 (1.43)	.94	4.19 (1.57)	.92	4.29 (1.59)	.93	4.61 (1.45)	4.59 (1.42)
Indonesia	224	45.54	37.65 (9.47)	3.22 (1.26)	.93	3.32 (1.27)	.94	5.55 (1.17)	.91	5.52 (1.18)	.92	5.48 (1.07)	5.39 (1.12)
Italy	473	57.29	42.93 (13.24)	3.61 (1.28)	.92	3.60 (1.31)	.93	4.66 (1.67)	.95	4.63 (1.63)	.94	4.69 (1.17)	4.61 (1.18)
Japan	469	39.02	46.81 (12.45)	2.83 (1.40)	.95	2.77 (1.38)	.95	4.85 (1.17)	.88	4.85 (1.17)	.91	4.01 (1.38)	4.02 (1.34)
Korea	430	48.60	40.62 (12.24)	3.05 (1.30)	.93	3.07 (1.35)	.95	4.26 (1.32)	.92	4.38 (1.37)	.93	4.23 (1.20)	4.21 (1.18)

Table 1 (Continued)

Descriptive and Reliability Statistics by Country/Society.

Country	*N*	Males (%)	Age	GAD-7 Time 1		GAD-7 Time 2		NATID Time 1		NATID Time 2		GSRH Time 1	GSRH Time 2
			M (*SD*)	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*α*	*M* (*SD*)	*M* (*SD*)
New Zealand	489	54.40	53.16 (15.97)	2.86 (1.28)	.93	2.90 (1.31)	.94	5.61 (1.42)	.93	5.63 (1.38)	.94	4.75 (1.48)	4.75 (1.47)
Philippines	108	53.70	36.82 (10.97)	2.96 (1.30)	.94	2.93 (1.29)	.94	6.16 (1.03)	.88	6.14 (1.14)	.91	5.25 (1.08)	5.19 (1.21)
Poland	494	53.04	43.90 (14.35)	3.32 (1.47)	.94	3.25 (1.43)	.94	5.38 (1.48)	.92	5.35 (1.55)	.94	4.83 (1.35)	4.72 (1.30)
Russia	429	53.61	41.29 (11.95)	3.24 (1.39)	.95	3.29 (1.35)	.95	5.54 (1.56)	.94	5.66 (1.47)	.95	4.62 (1.02)	4.55 (1.08)
Spain	221	54.75	45.75 (13.01)	3.30 (1.46)	.95	3.29 (1.52)	.96	5.02 (1.89)	.94	4.80 (1.89)	.95	5.03 (1.12)	4.80 (1.13)
Taiwan	256	42.19	39.87 (10.46)	3.40 (1.11)	.91	3.31 (1.13)	.94	5.43 (1.38)	.87	5.47 (1.24)	.89	4.25 (1.14)	4.14 (1.11)
Turkey	236	48.31	37.23 (10.98)	3.60 (1.42)	.94	3.72 (1.50)	.95	5.47 (1.84)	.92	5.52 (1.90)	.93	5.17 (1.23)	5.18 (1.30)
UK	548	51.28	53.35 (13.73)	3.04 (1.57)	.95	2.96 (1.55)	.96	5.16 (1.61)	.93	5.21 (1.59)	.93	4.71 (1.51)	4.67 (1.48)
USA	412	57.04	55.27 (14.08)	2.58 (1.35)	.94	2.57 (1.35)	.95	5.63 (1.44)	.90	5.58 (1.46)	.90	5.18 (1.34)	5.16 (1.33)

Table 2

Correlation Matrix

Measures	2	3	4	5	6	7	8
1. Gender	-.11 ***	.02	.03*	.01	.00	.14 ***	.13***
2. Age		-.01	.00	.21 ***	.22 ***	-.28 ***	-.29 ***
3. GSRH – Time 1			.78 ***	.14 ***	.12 ***	-.30 ***	-.25 ***
4. GSRH – Time 2				.14 ***	.15 ***	-.26 ***	-.26 ***
5. NatID – Time 1					.77 ***	-.12 ***	-.13 ***
6. NatID – Time 2						-.11 ***	-.13 ***
7. GAD-7 - Time 1							.71 ***
8. GAD-7 – Time 2							

Note: Males = 1; Females = 2
* = p < .05, ** = p < .01, *** = p < .001.

Table 3

Measurement Invariance Models: National Identity and Anxiety (GAD-7)

	df	X^2	*CFI*	*RMSEA* (*LCI, HCI*)	*SRMR*	*ΔCFI*	*ΔRMSEA*
Model A							
Unconstrained (configural)	774	3481.740	.955	.097 (.093, 1.00)	.035	.010	.001
Measurement weights	927	4289.726	.945	.098 (.095, .101)	.066		
Model B							
Unconstrained (configural)	774	3430.011	.959	.096 (.092, .099)	.032	.008	.001
Measurement weights	927	4072.182	.951	.095 (.092, .098)	.054		

Note: LCI = Lower 90% Confidence Interval; HCI = Higher 90% Confidence Interval.

Table 4

Unconstrained Cross-Lagged Panel Model: Regression Weights.

	Estimate	*SE*	*Z*	*p*	R^2
National Identity - T2					
NATD - Time 1	0.79	0.01	74.43	<.001	.66
GAD-7 - Time 1	0	0.01	-0.33	.741	
GSRH - Time 1	0	0.01	1.13	.260	
Age	0.01	0	8.02	<.001	
Gender	0.01	0.02	0.48	.635	
GAD-7 - T2					
GAD-7 - Time 1	0.68	0.01	61.77	<.001	.54
GSRH - Time 1	-0.06	0.01	-6.48	<.001	
NATID - Time 1	-0.02	0.01	-2.42	.016	
Age	-0.01	0	-10.82	<.001	
Gender	0.09	0.02	3.67	<.001	
GSRH - Time 2					
GSRH - Time 1	0.76	0.01	101.63	<.001	.61
GAD-7 - Time 1	-0.04	0.01	-4.54	<.001	
NATID - Time 1	0.03	0.01	4.14	<.001	
Age	0	0	-0.59	.555	
Gender	0.05	0.02	2.59	.010	

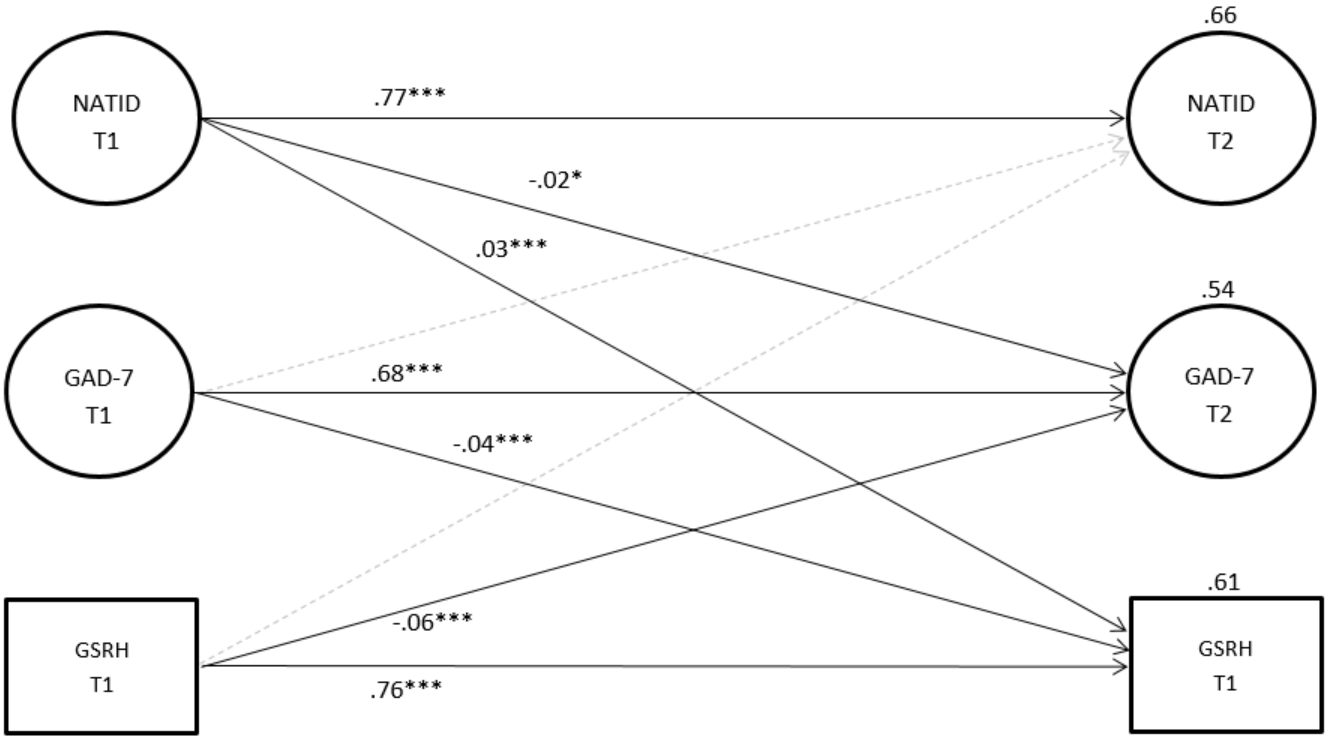


Figure 1. Cross-Lagged Panel Model. * = p < .05, ** = p < .01, *** = p < .001.