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Obligations in Japan: A three-year longitudinal study of midlife adults

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Abstract

Obligations embody a sense of responsibility toward others. Middle-aged adults may particularly feel obligated to many close others, from their parents to children, for instance. Previous studies suggest mixed findings on whether obligations benefit well-being and relationships. Accounting for the cultural context and different types of obligations can help explain the mixed findings. We examined obligations in 371 middle-aged adults living in Japan, using two waves of data from the Midlife in Japan (MIDJA) study. Factor analyses suggest three factors underlying obligation: light and substantive obligations to close others and public obligations to the broader community. Controlling for baseline outcomes, we examined whether obligation predicted changes in psychological and relational well-being over 3 years. Most associations between obligation and outcomes were non-significant. However, light obligation predicted less strain from friends over time ($\beta = -0.21$, $p = 0.03$), and substantive obligation predicted greater life satisfaction ($\beta = 0.20$, $p = 0.035$). Public obligation did not significantly predict any well-being or relational outcomes. Implications for research are discussed.

KEYWORDS

Japanese midlife adults, MIDJA, obligation, relationship quality, well-being

1 | INTRODUCTION

Does feeling obligated impact our well-being and the quality of our relationships? Obligation refers to a duty or commitment an individual feels bound to fulfil (Stein, 1992). Obligation is a ubiquitous and prevalent human experience as many people experience a sense of moral, legal, or relational duty or expectation to meet. Despite its universality, it is understood, communicated and expressed in ways that are profoundly shaped by sociocultural contexts (Guo et al., 2019; Juang & Cookston, 2009; Lee et al., 2018). However, much of the past research based on Western samples focused on individual differences, with limited attention to how the impact of obligation manifests in other countries with different cultural contexts (e.g. Japan).

In Japan, obligation, or 'Giri' (義理),[1] extends beyond close relationships to embody a moral responsibility to the broader society (Stein, 1992). In other words, people feel obligated to meet others' needs and expectations and contribute to their community, society and country. In this way, Giri binds individuals to their immediate social circles (e.g. to their family and friends) and to the larger society (e.g. local community, nation). As such, we examine the benefits and challenges of fulfilling expectations and maintaining relational harmony within the

Japanese cultural context. Specifically, we investigate the role of obligation on well-being and relationships among Japanese middle-aged adults.

1.1 | Why might obligation be related to psychological well-being?

Obligation has a *negative* connotation in many Western contexts because it is associated with lower autonomy and greater constraints (Markus & Kitayama, 1991; Miller, 1997; Ross & Mirowsky, 2013). In self-determination theory (SDT), the fulfilment of basic needs such as autonomy, relatedness and competence is crucial for well-being (Ryan & Deci, 2000). While fulfilling an obligation can meet relatedness needs, it may simultaneously hinder autonomy needs when experienced as externally imposed. Consistent with SDT, previous studies indicated that obligation is related to lower well-being and negative outcomes, such as a greater sense of burden among family caregivers (e.g. Grünwald et al., 2022; Guo et al., 2019; Lee et al., 2018).

However, the experience of obligation is further shaped by sociocultural context, particularly cultural models of selfhood (Gherghel & Nastas, 2021; Markus & Kitayama, 1991). In cultures that emphasize interdependence, such as Japan, the self is viewed as interconnected and inseparable from its context and environment (Kitayama et al., 2010). In this context, social expectations may not be experienced as externally imposed, but rather as internally valued and identity consistent. As a result, obligations can feel more natural, internalized and integrated into one's sense of self and thus may meet autonomy needs, more likely promoting well-being. For example, researchers compared how people felt when they helped because of a request compared to when they helped spontaneously and found that people in Japan (vs. people in Romania or the U.S.) reported a greater similarity in their two experiences of helping (Gherghel & Nastas, 2021). Similarly, when reflecting on a time people recently helped someone, perceiving that they were socially expected to help was linked with higher satisfaction of competence needs, which in turn predicted greater positive affect in Japanese adults (vs. lower satisfaction and lower positive affect in American participants; Gherghel & Nastas, 2021).

Additionally, research suggests that different types of obligations can have different psychological effects. For example, in a group of mostly white middle-aged individuals, feeling *light* obligation, which involved obligations toward easier, low-cost activities (e.g. calling parents regularly) was associated with higher life satisfaction, whereas feeling *substantive* obligation, which involved high-cost activities that resulted in long-lasting changes to the person's life (e.g. taking in a child of a friend) was associated with higher depressive symptoms (Oh et al., 2020). Thus, we expect that feeling light obligation would be linked with positive well-being outcomes. Although substantive obligation was linked with negative well-being in the U.S., we expect that in Japan, holding substantive obligations may be unrelated or even beneficial because there is greater psychological support and a cultural tendency to view others as a part of themselves.

Further, as Giri includes a sense of responsibility to the public society, we may find that Japanese people also feel a sense of obligation to the *public* which might also be related to personal well-being. While public obligation has not been directly studied, related constructs such as community participation have been positively associated with well-being (Alfieri et al., 2019; Han et al., 2019; Seo, 2023), although there may be consequences such as increased stress (Attree et al., 2011). In sum, drawing on SDT and cultural psychology, we expect that different types of obligation (e.g. light, substantive, public) in Japanese adults may have distinct but generally positive links with individual well-being.

1.2 | Why might obligation be related to the quality of relationships?

Obligation has been described as the 'glue' that bonds people together through a sense of mutual responsibility (Stein, 1992). In close or communal relationships (e.g. family and close friends), support is often given without the expectation of direct reciprocity (Clark & Mills, 2012; Suitor et al., 2011). In these contexts, obligation may enhance the relationship by fostering relatedness and commitment. For example, a study examining parent–child relationships showed that parents report high levels of relational satisfaction even when their adult children do not reciprocate the support (Suitor et al., 2011). In other words, people are more forgiving even if the support is not reciprocated because it is *not expected*. Other studies likewise find that high family obligation indicated positive family functioning and relationships (Fuligni et al., 2002; Milan & Wortel, 2015), greater social support and higher relationship quality with parents and peers (Juang & Cookston, 2009). In general, a higher sense of obligation is associated with greater commitment in relationships, which in turn is associated with deliberate behaviours to maintain and enhance relationships (Stanley et al., 2010). Similarly, feeling obligated to provide low-cost everyday support (i.e. *light obligation* such as regular contact) was associated with greater relational well-being (Oh et al., 2020). In sum, obligation can enrich relationships especially when people are oriented toward connection where unfettered giving is the norm within the relationship.

However, relational context and type of obligation may further shape the meaning of obligation (Clark & Mills, 2012; Fuligni et al., 2002). When people perceive imbalanced relationships (i.e. giving more than receiving), they may experience stress and lower relationship quality (Dehle et al., 2001). For example, extended

caregiving (i.e. filial obligation) often results in feelings of burden and unfairness, which can erode relational satisfaction (Guo et al., 2019). On the receiving end, people may also struggle with guilt, shame or indebtedness (Sprecher, 2001). Indeed, a large body of literature on spousal relationships reported that obligation and perceived reciprocity are associated with lower marital quality and relationship satisfaction (Sechrist et al., 2014; Wilcox & Nock, 2006). When people feel obligated but constrained, they may feel stuck in the relationships (Jamison & Beckmeyer, 2021). Longitudinally, feeling *substantive* obligation that exceeds one's capacity was associated with increased friend strain and a slower increase in friend support over 18 years (Oh et al., 2020). It is important to examine how obligation is linked with relational well-being over time as people accrue resources and capabilities, develop new relationships and take on new roles (Corso & Lanz, 2013). Thus, obligation can result in poor relationship outcomes when it exceeds their capacity and is hard to maintain.

Importantly, in Japanese culture, obligation is characterized by cultural orientation toward interdependence and collectivism, where individuals rely on each other for support and emphasize strong bonds within social groups (e.g. families, neighbourhoods, communities; Gherghel & Nastas, 2021; Markus & Kitayama, 1991). The cultural meaning of Giri extends to broader social and moral responsibilities to community and society, and emphasizes relational harmony and sensitivity to others' needs and sacrifices (Markus & Kitayama, 1991; Shen et al., 2011). This interdependence may fuel a strong sense of obligation, and the context may make obligation adaptive for relationships (Taylor et al., 2004). Indeed, previous research found that Japanese individuals reported higher levels of obligation compared with American counterparts (Hitokoto, 2016; Kitayama et al., 2006). Cultural practices such as 'reading the air' are highly valued skills in Japanese society, referring to the ability to discern unspoken words and subtle nuances of the context (Komiya & Tudor, 2016). Shen et al. (2011) posit that individuals from East Asian cultural contexts not only personally feel stronger obligations in relational contexts but also are more *sensitive* to others' costs and contributions. As such, obligation in Japan may be more implicit and internalized without an explicit request. Although we generally expect that obligations may be adaptive for relationships based on the Japanese interdependent cultural context, these nuances may shape the associations with obligation.

2 | PRESENT STUDY

Previous research suggested obligation is associated with both positive and negative psychological and relational outcomes. Accounting for *types* of obligation differing on the level of investment and cost helps explain the mixed findings in the U.S. (Oh et al., 2020). Midlife in Japan (MIDJA) also assessed obligations to the public community, which is applicable in the Japanese context but has not been examined. Using factor analyses, we test whether obligations to close relationships and to the general public emerge as separate factors (or whether they are indicators of a single obligation factor). Given the strong value in social connection (Kitayama et al., 2000), obligations among Japanese adults may take on a different form and/or play a different role. Thus, in the present study, we first examine the factor structure of obligation using data from the MIDJA study.

Second, we examine whether obligation prospectively predicts higher individual and relational well-being. If obligation emerges as a single factor, we expect to find that obligation is associated with mostly positive outcomes. If relational obligation is also best characterized by two factors in this sample, as found previously in the U.S. (Oh et al., 2020), we may replicate previous results and find that light obligation is generally linked to positive outcomes while substantive obligation is mostly unrelated to outcomes but sometimes negatively related. However, given the cultural context, we may instead find substantive obligation is still related to positive relational outcomes. If public obligation is best characterized as a separate factor, it may be associated with psychological well-being. Given that public obligation has not been directly examined, our test is exploratory and descriptive. However, there is some evidence for the association with community engagement and greater well-being (Alfieri et al., 2019; Han et al., 2019; Seo, 2023), but there may be unintended consequences such as stress (Attree et al., 2011). These consequences may be due to depletion of resources (i.e. time and financial) consistent with studies on relational obligations and support/caregiving to close others. Nevertheless, Aikawa (1990) suggested that indebtedness is an underlying emotion that can explain why people want to reciprocate when they feel obligated. For Japanese students, feeling indebtedness was stronger when they received help from strangers (i.e. acquiring time or resources from someone to whom they are not related), which suggested that Japanese participants appraise situations in a more relationally concerned manner compared with their American counterparts (Hitokoto, 2016). While the associations between public obligation and relational quality have not been tested, we generally aim to describe whether being obligated to close relationships and broader society is associated with how people perceive their lives and the quality of close relationships.

3 | METHOD

3.1 | Participants

Participants were from a large longitudinal survey of Midlife in Japan (MIDJA; Ryff et al., 2008). Full details of the study protocol and data are available at https://www.

icpsr.umich.edu/web/ICPSR/studies/34969. The first wave of the MIDJA recruited 1027 middle-aged adults residing in Tokyo, Japan in 2008, and included measures of well-being used in the present study. Then, the MIDJA Biomarker study obtained a subsample ($N = 382$) of participants from the larger MIDJA, who completed a measure of obligation in 2009–2010. The second wave of the study (MIDJA 2) was conducted in 2012–2013, when well-being and obligation were measured again. In 2008, participants were on average 54.36 years old (SD = 14.14, ranging from 30 to 79). 56.02% were women and 43.98% men. The majority of participants were married (69.13%), 16.16% were never married, 6.82% widowed and 7.69% divorced/separated. In 2012, 71.54% were partnered and eligible to provide data on partner support/strain.

3.2 | Measures

3.2.1 | Trait obligation

Trait obligation was assessed in family, close friends and public community using a shortened version of social obligation scale (Rossi, 2001). Sample items for obligations to family and close friends included 'I feel obligated to drop plans when members of my family seem very troubled' ($\alpha = 0.66$) and for the public community included 'I feel obligated to keep fully informed about national news and public issues' ($\alpha = 0.68$). Participants were asked to report the degree of agreement with each item on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicated higher levels of obligation. The original social obligation scale (Rossi, 2001) had eight items for trait obligation (i.e. general tendency across situations) for family and close friends and four items for obligation for public community. However, MIDJA utilized the shortened version of the scale that has four items for family and friends and three items for public community. In this study, obligation could be characterized by holding light and substantive obligations to close others and obligations to the public community.

3.3 | Individual well-being

3.3.1 | Life satisfaction

Life satisfaction was assessed using the Satisfaction with Life Scale (SWLS; Pavot & Diener, 1993). We calculated an average of five items. Sample items are 'In most ways, my life is close to my ideal' and 'I am satisfied with my life'. Participants were asked to report the degree of agreement on a scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicated higher levels of life satisfaction (αs > 0.89).

3.3.2 | Affect

Positive and negative affect were assessed using the Positive Affect Negative Affect Scale (PANAS; Watson et al., 1988). Participants report how frequently they felt each emotion during the past 30 days using a scale ranging from 1 (*none of the time*) to 5 (*all the time*). Four items were averaged to measure positive affect (e.g. 'enthusiastic'; αs ≥ 0.84), and five items were averaged to measure negative affect (e.g. 'afraid'; αs ≥ 0.86).

3.4 | Relational well-being

We operationalized relational well-being as support and strain from friends, partners and other family members. Participants responded to each item on a scale ranging from 1 (*Not at all*) to 4 (*A lot*) for support and 1 (*Never*) to 4 (*Often*) for strain. Average scores were calculated. Higher scores indicated higher levels of support/strain.

3.4.1 | Friend support and strain

Friend support was assessed using four items that examined the amount of support participants perceived from their friends (e.g. 'How much do your friends really care about you?'; αs ≥ 0.83). Friend strain was assessed using four items that examined the amount of strain participants perceived from their friends (e.g. 'How often do your friends make too many demands on you?'; αs ≥ 0.77).

3.4.2 | Family support and strain

Family support was assessed using four items that examined the amount of support participants perceived from their family (e.g. 'Not including your spouse or partner, how much do members of your family really care about you?'; αs ≥ 0.85). Family strain was assessed using four items that examined the amount of strain participants perceived from their family (e.g. 'Not including your spouse or partner, how often do members of your family make too many demands on you?'; αs ≥ 0.85).

3.4.3 | Partner support/strain

Partner support was assessed using six items that examined the amount of support participants perceived from their partner (e.g. 'How much does your spouse or partner really care about you?'; αs ≥ 0.92). Partner strain was assessed using four items that examined the amount of strain participants perceived from their partner (e.g. 'How often does your spouse or partner make too many demands on you?'; αs ≥ 0.88).

3.5 | Data analysis

The analysis plan was pre-registered at https://osf.io/cr5bw/?view_only=a2cf958d0e4b4e5c99ad38a7c49b123d. Analyses were conducted in Mplus 8.1 (Muthén & Muthén, 2017) using FIML. We used traditional indices of model fit (CFI > 0.9, RMSEA < 0.06, SRMR > 0.08, TLI > 0.9; e.g. Cheung & Rensvold, 2002; Hu & Bentler, 1999) to examine model fit among 1–3 factor solutions in the Exploratory Factor Analysis (EFA) using wave 1. We also ran a Confirmatory Factor Analysis (CFA) using wave 2 data. Using the final solution, we examined whether obligation in wave 1 predicts outcomes in wave 2. We ran five models: in the first two models, we examined obligation as a latent variable predicting individual well-being (first, life satisfaction, second, positive affect and negative affect) as observed variables.[2] Then, we ran three models where outcome variables are relationship quality (support and strain) with friends, spouse/partner and family members using observed variables. Age and gender (women = −1, men = 1) were included as covariates given past research (e.g. Elmelech, 2005; Fuligni et al., 2002).

Although not pre-registered, we modelled baseline well-being (measured in 2008) as a predictor of obligation (measured in 2009) and future well-being (measured in 2012). This was to account for the possibility that initial well-being might influence both the level of obligation and changes in well-being over time (e.g. having good relationships in turn leads to both higher obligation and better relationships in the future). Without controlling for baseline outcomes, coefficients inform whether obligation at wave 1 is related to well-being at wave 2, whereas when controlling for baseline outcomes, coefficients inform whether obligation at wave 1 is related to *change* in well-being across wave 1 and 2. Given this nuance, there were some slight differences in the results, but we present the results from these final models because links between obligations and outcomes were generally consistent.

4 | RESULTS

4.1 | Measurement work

To assess the factor structure of the measure of obligation, we conducted an EFA and a CFA. The EFA suggested the three-factor solution fit better than a one- and two-factor solution. The CFA supported the three-factor solution (see Table 1 for model fit indices). One factor represented obligations to the *public* community, and the other two factors represented obligations to close relationships. Consistent with previous work (Oh et al., 2020), obligations to close relationships were separable on different levels of investment/costs into *light* and *substantive* obligations. See Tables S1–S6 for a full list of items and factor loadings.

4.2 | Preliminary analyses

Means, standard deviations and correlations among all study variables are presented in Tables S1–S6. On average, most people reported feeling some level of light obligation and public obligation (1 SD below the mean is still above the midpoint). However, on average, people reported neither agreeing nor disagreeing with feeling substantive obligation. Light, substantive and public obligations were all moderately intercorrelated ($rs > 0.28$). Light obligation and public obligation were positively correlated with well-being ($rs > 0.10$) and positive affect ($rs > 0.13$). Substantive obligation was positively correlated with well-being ($r = 0.05$). Light obligation was positively correlated with family support ($r = 0.10$) but negatively correlated with friend strain ($r = -0.14$). Substantive obligation was not associated with relationship quality. Public obligation was positively correlated with partner strain ($r = 0.27$) but positively correlated with family support and friend support ($rs > 0.16$).

4.3 | Main analyses

We first tested whether three types of obligation predicted psychological well-being after 3 years, controlling for the level of well-being 4 years ago (model fit information in Table 2). Tables 3 and 4 present parameter estimates. Substantive obligation predicted higher life satisfaction ($\beta = 0.20$, $p = 0.035$). Otherwise, obligation was not associated with life satisfaction, positive affect and negative affect. Women reported higher negative affect than men ($\beta = -0.08$, $p = 0.008$) and outcomes

TABLE 1 Model fit indices for factor analysis.

Model	χ^2	df	p	RMSEA	CFI	TLI	SRMR	$\Delta\chi^2$	Δdf	Δp
EFA: 1-factor	81.02	14	<0.001	0.11 [0.09, 0.14]	0.84	0.56	0.06			
EFA: 2-factor	27.54	8	0.001	0.08 [0.05, 0.12]	0.95	0.88	0.04	53.48	6	<0.001
EFA: 3-factor	1.68	3	0.640	<0.001 [0.00, 0.07]	1.00	1.02	0.01	25.86	5	<0.001
CFA: 3-factor	23.48	11	0.015	0.06 [0.03, 0.09]	0.96	0.93	0.04			

Note: 90% Confidence intervals in brackets. MIDJA1 Biomarker sample ($N = 371$) was used to conduct an Exploratory Factor Analysis (EFA). MIDJA2 Biomarker sample ($N = 316$) was used to conduct a Confirmatory Factor Analysis (CFA).

TABLE 2 Model fit indices.

	χ^2	df	*p*	RMSEA [90% CI]	CFI	TLI	SRMR
Affect	131.40	43	<0.001	0.05 [0.04, 0.05]	0.92	0.86	0.06
Life satisfaction	117.60	33	<0.001	0.05 [0.04, 0.06]	0.91	0.86	0.06
Family	211.46	45	<0.001	0.06 [0.05, 0.07]	0.80	0.69	0.09
Friend	225.80	45	<0.001	0.06 [0.06, 0.07]	0.81	0.70	0.10
Partner	225.53	45	<0.001	0.06 [0.06, 0.07]	0.83	0.73	0.10

Note: $N = 1027$.

TABLE 3 Three types of obligation (in 2009–2010) predicting life satisfaction (in 2012–2013).

	b	SE	*t*	*p*	LB	UB	*β*
Life satisfaction wave 2							
Light	0.12	0.10	1.14	0.255	−0.08	0.32	0.10
Substantive	**0.24**	**0.11**	**2.11**	**0.035**	**0.02**	**0.46**	**0.20**
Public	−0.12	0.10	−1.16	0.247	−0.32	0.08	−0.10
Age	0.00	0.00	1.46	0.145	0.00	0.01	0.05
Gender	−0.04	0.03	−1.26	0.206	−0.11	0.02	−0.04
Life satisfaction wave 1	**0.67**	**0.04**	**18.23**	**<0.001**	**0.59**	**0.74**	**0.69**

Note: Results statistically significant at $p < 0.05$ are bolded. Gender: Women = −1 and Men = 1.

TABLE 4 Three types of obligation (in 2009–2010) predicting positive and negative affects (in 2012–2013).

	b	SE	*t*	*p*	LB	UB	*β*
Positive affect wave 2							
Light	−0.10	0.18	−0.56	0.576	−0.46	0.26	−0.13
Substantive	0.41	0.26	1.55	0.121	−0.11	0.92	0.55
Public	−0.22	0.22	−1.02	0.309	−0.65	0.21	−0.29
Age	0.00	0.00	−0.61	0.542	−0.01	0.00	−0.02
Gender	−0.04	0.03	−1.78	0.076	−0.09	0.01	−0.06
Positive affect wave 1	**0.74**	**0.13**	**5.64**	**<0.001**	**0.48**	**1.00**	**0.73**
Negative affect wave 2							
Light	−0.10	0.09	−1.15	0.252	−0.27	0.07	−0.15
Substantive	0.15	0.08	1.88	0.060	−0.01	0.31	0.24
Public	−0.11	0.08	−1.44	0.151	−0.27	0.04	−0.18
Age	0.00	0.00	−1.23	0.218	−0.01	0.00	−0.04
Gender	**−0.06**	**0.02**	**−2.67**	**0.008**	**−0.10**	**−0.02**	**−0.08**
Negative affect wave 1	**0.63**	**0.05**	**13.62**	**<0.001**	**0.54**	**0.72**	**0.63**

Note: Results statistically significant at $p < 0.05$ are bolded. Gender: Women = −1 and Men = 1.

measured 4 years ago were strong predictors of each outcome (βs > 0.63, ps < 0.001).

Then, we tested whether three types of obligation predicted relational well-being after 3 years, controlling for the level of relational well-being 4 years ago (model fit information in Table 2). Tables 5–7 present parameter estimates. In general, obligations did not predict strain or support from friends (Table 5), family members (Table 6) and partners/spouses (Table 7). There was one exception: light obligation predicted *less* strain from friends ($\beta = -0.21$, $p = 0.03$). Older people reported less strain from family and friends (βs < −0.10, ps < 0.013) but also less support from friends ($\beta = -0.07$, $p = 0.028$). Women reported greater strain from their family and partners (βs < −0.12, ps < 0.030) but also greater support from family members and friends (βs < −0.09, ps < 0.015). Relationship-specific support and strain measured 4 years ago were strong predictors of each outcome (βs > 0.35, ps < 0.001).

5 | DISCUSSION

Giri, a sense of obligation in Japan, is crucial to Japanese society as it is deeply ingrained in maintaining

TABLE 5 Three types of obligation (in 2009–2010) predicting support and strain from friends (in 2012–2013).

	b	SE	*t*	*p*	LB	UB	*β*
Friend strain wave 2							
Light	**−0.10**	**0.05**	**−2.17**	**0.030**	**−0.19**	**−0.01**	**−0.21**
Substantive	0.06	0.06	1.06	0.289	−0.05	0.17	0.12
Public	0.04	0.04	1.07	0.287	−0.03	0.11	0.08
Age	**−0.003**	**0.001**	**−2.48**	**0.013**	**−0.01**	**0.00**	**−0.10**
Gender	−0.002	0.02	−0.10	0.919	−0.04	0.03	0.00
Friend strain wave 1	**0.35**	**0.04**	**8.05**	**<0.001**	**0.26**	**0.43**	**0.35**
Friend support wave 2							
Light	0.02	0.05	0.33	0.741	−0.08	0.11	0.03
Substantive	0.04	0.06	0.66	0.512	−0.08	0.16	0.06
Public	0.07	0.04	1.58	0.114	−0.02	0.15	0.11
Age	**−0.003**	**0.001**	**−2.20**	**0.028**	**−0.01**	**0.00**	**−0.07**
Gender	**−0.06**	**0.02**	**−3.22**	**0.001**	**−0.10**	**−0.02**	**−0.10**
Friend support wave 1	**0.58**	**0.03**	**16.84**	**<0.001**	**0.51**	**0.64**	**0.57**

Note: Results statistically significant at $p < 0.05$ are bolded. Gender: Women = −1 and Men = 1.

TABLE 6 Three types of obligation (in 2009–2010) predicting support and strain from family (in 2012–2013).

	b	SE	*t*	*p*	LB	UB	*β*
Family strain wave 2							
Light	0.024	0.05	0.46	0.649	−0.08	0.13	0.04
Substantive	0.054	0.05	1.09	0.274	−0.04	0.15	0.09
Public	0.043	0.05	0.97	0.334	−0.05	0.13	0.07
Age	**−0.007**	**0.00**	**−4.12**	**<0.001**	**−0.01**	**0.00**	**−0.16**
Gender	**−0.075**	**0.02**	**−3.36**	**0.001**	**−0.12**	**−0.03**	**−0.12**
Family strain wave 1	**0.449**	**0.05**	**8.92**	**<0.001**	**0.35**	**0.55**	**0.44**
Family support wave 2							
Light	−0.003	0.05	−0.07	0.948	−0.09	0.09	−0.01
Substantive	0	0.05	−0.01	0.996	−0.10	0.10	0.00
Public	0.082	0.04	1.87	0.062	0.00	0.17	0.12
Age	**−0.003**	**0.00**	**−1.55**	**0.122**	**−0.01**	**0.00**	**−0.06**
Gender	**−0.059**	**0.02**	**−2.44**	**0.015**	**−0.11**	**−0.01**	**−0.09**
Family support wave 1	**0.528**	**0.04**	**12.82**	**<0.001**	**0.45**	**0.61**	**0.52**

Note: Results statistically significant at $p < 0.05$ are bolded. Gender: Women = −1 and Men = 1.

harmonious familial, communal and societal relationships (Davies & Ikeno, 2002). In a sample of Tokyo-dwelling Japanese middle-aged adults, we found that obligation can be separated into obligations people feel to close others and obligations they feel to the public community. The obligations they feel to close others could be further separated by *light* obligations—feeling responsible for more everyday behaviours—and *substantive* obligations—feeling responsible for behaviours that are more costly. This factor structure aligns with a previous study in the U.S., suggesting the distinction between light and substantive relational obligations (Oh et al., 2020). Additionally, examining items regarding feeling responsible toward the community, we found these items were explained by a distinct factor (vs. not subsumed under a single obligation factor), which we called public obligation, among Japanese adults. Public obligation involves a sense of duty and responsibility toward the broader community and society. Overall, we found that light obligation predicted less strain from friends, and substantive obligation predicted greater life satisfaction over a three-year period. Public obligation did not significantly predict changes in well-being or relationship quality longitudinally.

We found that light obligation was linked with less friend strain over time. This finding is consistent with previous research in the U.S. context (Oh et al., 2020) suggesting that feeling obligated to engage in low-cost,

TABLE 7 Three types of obligation (in 2009–2010) predicting support and strain from partners (in 2012–2013).

	b	SE	*t*	*p*	LB	UB	*β*
Partner strain wave 2							
Light	−0.02	0.06	−0.37	0.709	−0.14	0.09	−0.04
Substantive	−0.02	0.06	−0.31	0.758	−0.13	0.10	−0.03
Public	0.05	0.04	1.21	0.227	−0.03	0.14	0.09
Age	0.001	0.002	0.41	0.679	0.00	0.00	0.02
Gender	**−0.05**	**0.02**	**−2.17**	**0.030**	**−0.09**	**−0.01**	**−0.08**
Partner strain wave 1	**0.54**	**0.04**	**13.52**	**<0.001**	**0.47**	**0.62**	**0.57**
Partner support							
Light	−0.06	0.08	−0.78	0.434	−0.21	0.09	−0.08
Substantive	0.07	0.07	1.04	0.298	−0.07	0.21	0.11
Public	0.02	0.05	0.50	0.617	−0.07	0.12	0.03
Age	0.001	0.002	0.48	0.632	0.00	0.01	0.02
Gender	−0.01	0.02	−0.44	0.658	−0.06	0.04	−0.02
Partner support wave 1	**0.65**	**0.04**	**18.12**	**<0.001**	**0.58**	**0.72**	**0.71**

Note: Results statistically significant at $p < 0.05$ are bolded. Gender: Women = −1 and Men = 1.

everyday support behaviours (e.g. maintaining regular contact) can be important in a friendship context. Because friendships are voluntary, small acts of kindness motivated by light obligation may particularly strengthen the bond between friends through a sense of mutual investment or responsiveness, which in turn reduces strain in the long term. In other words, light obligation may enhance relationship quality by reinforcing norms of reciprocity—facilitating friends giving and taking in balanced ways over time and preventing feelings of inequity and imbalance in the friendship (e.g. feeling like a friend is making too many demands compared to me). Interestingly, we did not find significant associations between light obligation and other personal and relational outcomes. One possible explanation is that the long-term effects of light obligation may be limited, somewhat consistent with previous work that found light obligation was mostly associated with higher levels of rather than with rates of change in life satisfaction or other positive outcomes across a longer period (i.e. no association with slopes across 18 years; Oh et al., 2020). It could also be that the cultural context moderated the link.

Interestingly, while we speculated that substantive obligation might be linked with positive outcomes or not associated with outcomes given the cultural context, it was linked with life satisfaction but not with positive or negative affect. Previous research in the U.S. found mostly null effects of substantive obligation on well-being and relationships (Oh et al., 2020) and a few negative outcomes due to greater resources (e.g. time/financial burden; Sechrist et al., 2014). Similarly, caregiving literature demonstrated that individuals who perceive themselves as giving excessive support often report feelings of burnout and decreased life satisfaction (Guo et al., 2019). Our findings may reflect that in a society that assumes more overlap between the self and others, substantive obligations could play a similar role as light obligation for general well-being. In the Japanese context, where social attunement is highly valued (Kitayama et al., 2010), substantive obligation may support general well-being without generating emotional or relational burden. In other words, fulfilling obligations may contribute to a sense of fulfilment (Fredrickson, 2000), which may be an important source of well-being in middle-aged and late-life adults. Thus, substantive obligations may be more aligned with social expectations, especially in a cultural context where personal sacrifice toward close others is normatively integrated into one's identity (Kitayama et al., 2010).

Lastly, public obligation did not significantly predict changes in individual or relational well-being. One potential explanation is that public obligation is not relevant for Japanese adults' well-being as originally speculated, despite Giri incorporating responsibilities to the public. Talhelm (2019) argues that collectivism prioritizes the needs of close relationships (e.g. family) over everyone (e.g. public), while individualism places more emphasis on the broader good. People in collectivistic cultures may benefit from obligations to their close relationships but not from obligations to the public, which aligns with our finding about public obligation. Moreover, midlife adults may have more competing demands across work, family and caregiving domains, which may constrain their capacity for public engagement (Corso & Lanz, 2013; Fingerman et al., 2011; Riley & Bowen, 2005). As such, public obligations may be a lower priority during this life stage and have less impact on psychological and relational well-being.

Overall, we found that obligation is multifaceted and has nuanced and few links with well-being and relationships. While most forms of obligation did not predict changes in individual and relational well-being among

Japanese middle-aged adults, when effects emerged, they mostly predicted well-being in a *positive* direction (e.g. lower strain and greater life satisfaction). The findings underscore the complexity of obligation and highlight the importance of differentiating types of obligation and the relational contexts experienced by midlife adults.

5.1 | Limitations and implications for future research

Despite the strengths of the study, there are limitations worth noting. First, our sample consisted of Tokyo-dwelling middle-aged Japanese adults. Participants were living in one of the most populated metropolitan cities in the world, and results may not generalize to people living in more rural parts. Although there has not been research done to examine rural–urban differences in obligation, studies document Japan's rural–urban differences in education level, marital status, relation to neighbourhoods, participation in community activities, available social and psychological resources and collaboration of family members in child-rearing (Hiratani & Hohashi, 2016; Iwasaki et al., 2001; Tsuno & Yamazaki, 2012). Replicating this study in a more diverse sample of Japanese middle adults is needed, where people have different expectations and support systems that shape the strength, content and effect of obligations. Additionally, the role of public obligation has not been explored in individualistic contexts. Future research should consider the nuances of this relationship, examining how cultural values shape the association between public obligation and well-being in different cultural contexts.

Second, we measured how obligated people *would* feel in a hypothetical situation and did not experimentally manipulate obligations. Future research should consider experimental evidence. Although many situations that fall under light and public obligation are common situations (e.g. feeling obligated to drop plans when family members seem troubled) to which people know how they would generally feel and behave, some situations that fall under substantive obligation have lower base rates (e.g. taking in divorced or unemployed adult child back into home). Thus, their responses may not reflect how they would actually feel and act in the specific context. Nevertheless, rather than looking at *state* obligation (a one-time, situationally dependent characteristic), we were looking at *trait* obligation (a more enduring, general tendency across time and situations). In other words, even though people probably cannot meet all their obligations all the time, what is the long-term association between generally *feeling* obligated and outcomes of individual and relational well-being? Nonetheless, future research should still examine behaviours as moderators because whether one is generally able to fulfil their obligation may interact with felt obligation. We can expect that a person who strongly feels they need to contact family members on a regular basis and does so on most weeks feels more positive than another who never can (Crocker et al., 2017; Higgins, 1998). In terms of measurement, the low reliability of substantive obligation ($\alpha = 0.42$) should also be noted. The current factor structure included an item that was excluded in a U.S. sample (Oh et al., 2020) due to cross-loading. Future research should develop a more comprehensive measure to examine types of obligations.

Third, people's obligations might change with experience. For instance, feeling gratitude to a friend might increase people's obligation toward them in the future (Watkins et al., 2006). Though not described in the main results, we tested correlations between time 1 and time 2 obligations. We found some rank-order stability at the factor level ($rs > 0.41$), and this specific obligation was also moderately correlated over time ($r = 0.35$), suggesting some level of stability but also change over time. Given the links between obligation and outcomes, it would be interesting to measure obligation over time to test whether feelings of obligation are heightened in certain contexts but return afterward or continue to change over time.

Despite these limitations, this study extends previous obligation literature and further highlights the nuances of feeling obligated on individual and relational well-being over 3 years. People often do things out of obligations, yet on average, for middle-aged adults in Japan, having stronger or weaker obligations may not be relevant for their well-being. For the few outcomes that did matter, less is known about the mechanics behind how and why the sense of obligations influences those specific mental health and relationship outcomes. Thus, it is important to continue examining the nuanced understanding of obligations changing over time in diverse cultural contexts.

AUTHOR CONTRIBUTIONS

Han Na Lee: Conceptualization; investigation; methodology; project administration; resources; validation; visualization; writing – original draft; writing – review and editing. **Jeewon Oh:** Conceptualization; formal analysis; methodology; resources; software; validation; visualization; writing – original draft; writing – review and editing. **Takeshi Nakagawa:** Writing – review and editing.

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CONFLICT OF INTEREST STATEMENT

The authors report there are no competing interests to declare.

DATA AVAILABILITY STATEMENT

The data are available at https://www.icpsr.umich.edu/web/ICPSR/studies/34969.

RESEARCH MATERIALS AVAILABILITY STATEMENT

MIDJA data are publicly available at the Inter-university Consortium for Political and Social Research (ICPSR) as part of the MIDUS collection.

ETHICS STATEMENT

There is no need for IRB approval as the data are publicly available, and the authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

PRE-REGISTRATION STATEMENT

The project was pre-registered at https://osf.io/cr5bw/?view_only=a2cf958d0e4b4e5c99ad38a7c49b123d.

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Endnotes

[1] Gimu (義務) is another translation of obligation. *Gimu* generally refers to duties or obligations that are non-negotiable and grounded in explicit laws and regulations. In this article, we use *giri* to embody obligations grounded in implicit moral senses, particularly one toward hierarchical structures in Asian cultures, including family, community and society.

[2] We ran into convergence problems; following our pre-registration, we then modelled these individual well-being outcomes across two models instead of a single model.

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SUPPORTING INFORMATION

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