### Abstract

Although often categorised by cultural differences (e.g., collectivism and individualism), Japan and the United Kingdom have several cultural commonalities. One of them is that both countries are known to have a 'shame culture'; people in these countries often recognise shame in their lives relating to their cultural virtues. While shame can lead to social conformity, this negative affect associated with a sense of inadequacy can also damage our wellbeing. Because of the rapid advancement of technologies in these economically developed countries in the 4IR, workers are put under greater pressure, which is associated with more mental health problems. Their challenged mental health is further exacerbated by strong shame associated with mental health problems. Accordingly, we examined mental health shame in UK and Japanese workers. Four hundred workers (131 Japanese and 269 UK workers) completed measures of mental health and mental health shame, specifically negative attitudes, external, internal, and reflected shame. The results showed that Japanese workers had higher levels of mental health problems and shame than UK workers. In both countries, mental health and shame were overall associated with each other, apart from some familyrelated variables in Japanese workers. Family reflected shame was a significant predictor in Japanese workers, while self reflected shame was a significant predictor in UK workers. We discuss the implications of these findings with particular reference on how to reduce mental health shame in Japanese and UK workplaces and the provision of solutions for better work mental wellbeing, relating to the advantages of technologies. Because shame often involves perception of others, online interventions may be useful as they can be undertaken by each worker at a private place (instead of their office). Such individualised interventions enabled by the technologies of the 4IR may help to address shame-associated mental health problems in modern workplaces.

Keywords: Cross-cultural comparison, mental health shame, work mental health, Japanese

workers, UK workers

### Introduction

### **Challenging Work Mental Health**

Poor mental health of workforce is a cause for concern in many countries (Kestel, 2019). In the United Kingdom (UK), the government report identified that 15% of the UK workforce had some type of mental health problems, and more than 300,000 workers lost their jobs due to mental illness every year, which was more than those who lost their jobs due to physical health problems (Stevenson & Farmer, 2017). The costs of workplace mental health on employers were estimated to be about £40 billion, half of which was incurred from presenteeism - reduced work productivity caused by poor mental health. Additionally, the costs on the government were estimated to be about £25 billion, including welfare, tax reduction, and national health service. Counting other expenses, the total costs of poor work mental health to the UK economy were approximately £80 billion per year (Stevenson & Farmer, 2017). Considering the UK's GDP is £2 trillion, £80 billion is not negligible.

Likewise, Japanese workers also suffer from poor mental health: 60% of the employees experience intense anxiety and stress (Ministry of Health, Labour and Welfare [MHLW], 2013), and the number of Japanese workers' compensation claims for mental health problems has been steeply increasing (200 in 2000 to 1,500 in 2015; MHLW, 2016). The Japanese government passed a new policy that aims to prevent *karoshi* ("過労死" = death from overwork) and other (over)work-related health disorders in 2014 (MHLW, 2014). To facilitate its implementation, the government budget for preventive strategies against overwork-related disorders increased by 35% (5.5 billion JPY in 2015 to 7.4 billion JPY in 2016) (MHLW, 2016). The new policy defined (over)work-related disorders as i) death by cerebrovascular/cardiovascular diseases (CCVD), ii) suicide following the onset of mental illness caused by work, and iii) CCVD and mental disorders due to work. This policy also emphasises the transparency of workers' physical and mental health, including work-life

4

balance. More recently (2016), the government has initiated the work-style reform to help reduce overtime working, which in turn is aimed to help maintain the Japanese workforce (The Prime Minister of Japan and His Cabinet, 2016). Despite these radical attempts, the results remain ambiguous (Ito & Aruga, 2018).

### Work Mental Health in the 4IR

Advancement in technologies is beneficial to work productivity, enhancing perceived autonomy over and flexibility in work (Kossek, Lautsch, & Eaton, 2006; Mazmanian, Orlikowski, & Yates, 2013). Today many organisations utilise technologies to allow employees to decide the time and location of work, to some degree, using virtual teams and telecommuting (Cascio, 2000; Townsend, DeMarie, & Hendrickson, 1998). However, disadvantages of using advanced technologies have also been reported, including negative impacts on workers' mental health. The long-term use of computers was associated with depression and insomnia in 25,000 Japanese workers in a three-year longitudinal study (Nakazawa et al., 2002). Similar results were found in Korea too (Kim, Kang, Yoo, Lee & Hong, 2016). The 'always on' culture in the 4IR yields more stress on workers by blurring the boundary between work and life: 59% of UK workers answer phone calls and 55% check emails outside their working hours (AXA, 2017). Modern workers suffer from pressure that they must respond to queries right away even when not working (i.e., workplace telepressure; Barker & Santuzzi, 2015). This autonomy paradox (technologies that are intended to help work autonomy have resulted in reducing the autonomy; Mazmanian et al., 2013) adds more stress on workers by disrupting workers' recovery from work (Day, Scott, & Kelloway, 2010; Olson-Buchanon & Bowsweel, 2006). In America, 44% of workers check emails on vacation, and 54% do so during sick leave (American Psychological Association, 2013). Telepressure was associated with workaholism, work-life conflict, and burnout (Barker & Santuzzi, 2015).

These findings suggest that maintaining good work mental health can be difficult in the 4IR, requiring organisations to adopt new approaches (e.g., turning off emails).

#### Mental Health Shame

Shame can deter people from asking for help, and is directly related to poor mental health (Corrigan, 2004). Shame is a potent affect that can damage people's mental health (Kim, Thibodeau, & Jorgensen, 2011), and is related to depression (Matos & Pinto-Gouveia, 2010), anxiety (Tangney, Wagner, & Gramzow, 1992), paranoia (Matos, Pinto-Gouveia, & Gilbert, 2013), post-traumatic stress disorder (Harman & Lee, 2010), and eating disorders (Skarderud, 2007). Moreover, a recent meta-analysis reported that shame was strongly related to self-harm, while guilt was not (Sheehy et al., 2019). High shame about mental health problems (i.e., mental health shame) has been seen in both UK and Japanese working populations, associated with poor workplace mental health (Kotera, Adhikari & Van Gordon, 2018a; Kotera, Gilbert, Asano, Ishimura & Sheffield, 2018b; Kotera, Green & Sheffield, 2019c).

Shame about mental health problems can be categorised into three types: internal, external, and reflected shame (Gilbert 1998). External shame is pertinent to the feeling of being disdained by others, fearing rejection and isolation, regarding mental health problems. When one believes they are perceived negatively by others, because of their mental health problems, external shame is present. Internal shame refers to one's own negative selfjudgements, associated with undesired self. When one believes that they are inadequate, because of their mental health problems, internal shame is present. Lastly, reflected shame is related to worries that their mental health problems may cause shame in their family (family reflected shame), or that their family member's mental health problems may cause them a feeling of shame (self reflected shame).

Shame Culture of Japan and the UK

6

People in both Japanese and British cultures are sensitive to shame. Japanese culture has been described as a shame culture (Benedict, 1946), emphasising shame based on social reputation, which leads to a strong focus on social appearances (Inoue, 2007). Japanese people tend to behave (or not to behave) based on how others will see them, rather than their internal judgements (Benedict, 1946). For instance, during WWII, to die in combat was seen as a virtue (rather than to come home alive) in Japanese society. A Japanese sergeant, Shoichi Yokota was found in Guam and sent back to Japan in 1972, 27 years after Japan's surrender. He did not know the war was over, and on his return to Japan, he said he felt shameful about returning home alive (Hikita, 2004) as he did not fulfil the virtue of dying on the field of combat. Shame is also emphasised in the chapter of 'Honor' in the book 'Bushido: The Soul of Japan' (Nitobe, 1900), which describes the way of a samurai. Any infringement upon the integrity of one's reputation, also described as 'the immortal part of one's self', is felt as shame ('廉恥心 [Renchishin]') (Nitobe, 1900). Shame is seen strongly in today's Japanese workplaces: Japanese workers on average take half of the allowed annual leave days, as many of them (63%) feel ashamed to take many days off, making them the least rested workers in the developed countries (Saiidi, 2018).

Shame in modern Japan has also been captured in the science world. Japanese people feel strong shame about asking for help about their mental health problems, exacerbating their challenging mental health status even more (Ando, Yamaguchi, Aoki, & Thornicroft, 2013; Tanaka, Ogawa, Inadomi, Kikuchi & Ohta, 2003; Kotera et al., 2018b; Maekawa, Ramos-Cejudo & Kanai, 2012).

Likewise, shame is also emphasised in the British culture. For example, in the 18th century, a notorious courtesan, Harriette Wilson used her memoir as a blackmailing tool to ask for more money from her clients for the fear of being shamed (Peakman, 2009). In the 19th century, as noted in the civilizing process (Ellias, 1978), educational institutions in

Europe disciplined pupils through shaming rather than physical punishment. For example, in sexual education, girls were told to be careful not to listen to anything said about sex, conveying a sense of shame in them (von Raumer, 1857). Today, many UK doctors (72%) believe that education and training would help reduce the sense of shame in their workplace, by fostering openness in the culture (Moberly, 2015). Moreover, high levels of shame towards mental health problems were reported in UK students, who are afraid that seeking help would mean that they would violate some standard (Kotera, Conway & Van Gordon, 2019a; Kotera, Green & Sheffield, 2019b).

These findings and reports demonstrate that shame is an important construct in both Japanese and British cultures, suggesting a need for further investigation.

# Aims

This study aimed to compare mental health and mental health shame in Japanese and UK workers. Firstly, we compared the levels of mental health problems, namely depression, anxiety and stress as these were most common in both populations, and mental health shame, namely negative attitudes, external shame, internal shame, and reflected shame. Secondly, we compared relationships between mental health problems and mental health shame in each workforce. Lastly, we examined how much mental health shame could predict variance in mental health problems in each population group.

### Methods

# **Participants**

Opportunity sampling was employed to recruit Japanese workers, through online advertisement in researchers' networks. One hundred and thirty-one workers (73 males, 58 females; Age mean = 40.31, standard deviation = 11.17, range = 22-73 years) completed two self-report questionnaires about mental health problems and mental health shame. 21% were

## Sensitivity: Internal

hospitality workers, 16% worked in manufacturing, and 15% worked in education; 12% were team leaders in a section, 11% were presidents of an organisation, and 10% were section chiefs. No incentives were given for participation.

UK workers consisted of two sectors: hospitality and construction. Online questionnaires on researchers' networks were used to recruit UK hospitality workers through opportunity sampling. One hundred and fourteen (52 males, 62 females; Age mean = 28.24, standard deviation = 8.37, range = 18–55 years) hospitality workers completed the two selfreport measures. Construction workers were recruited by the health and safety leaders in UK construction companies. These leaders distributed the study information to their organisations, which indicated the URL to the online questionnaires. One hundred and fiftyfive (138 males and 17 females; Age mean = 40.28, standard deviation = 11.05, range = 21-67 years) workers completed the scales. Half of them worked in transitory sites (i.e., sitebased), 39% worked at office, and the remaining 11% worked at other places such as highways. Thirty-five percent of them were managers, 23% were foremen/supervisors, and 20% were operatives/workers. No incentives were given for participation.

In both Japanese and UK participant groups, workers who i) had a diagnosed mental health disorder, ii) were under 18 years old, and iii) had not worked for at least a year (in the industry for the UK workers) were excluded. Ethics approval was obtained from the University Research Ethics Committee.

### Instruments

*Mental health shame* was evaluated using the Attitudes Towards Mental Health Problems (ATMHP) (Gilbert et al., 2007). This 35-item comprises four subsections: (i) Community and Family Attitudes apprise their perception of how their community and family view mental health problems (e.g., 'My community sees mental health problems as something to keep secret'), (ii) External Shame relates to their perception of how their community and family would see them if they had a mental health problem, respectively (e.g., 'I think my community would see me as inadequate'), (iii) Internal Shame considers how they perceive themselves if they had a mental health problem (e.g., 'I would see myself as a weak person'), and (iv) Reflected Shame evaluates how their family would be viewed if they had a mental health problem (Family Reflected Shame), and fears of reflected shame on themselves, associated with a close family member having a mental health problem (Self Reflected Shame). Each item was responded on a four-point Likert scale (from 0 = do not agree at all to 3 = completely agree; a higher score indicates stronger shame). All of the subscales had good internal consistency ( $\alpha = .85-.97$ ; Gilbert et al., 2007).

*Mental health* was evaluated by identifying the level of their mental health problems using the Depression Anxiety and Stress Scale (DASS21), a shortened form of the original DASS42 (Lovibond & Lovibond, 1995). DASS 21 consists of three subscales (seven items each), measuring the levels of depression (e.g., 'I found it difficult to work up the initiative to do things'), anxiety (e.g., 'I was worried about situations in which I might panic and make a fool of myself'), and stress (e.g., 'I found myself getting agitated'). These three symptoms were most common mental health problems in the general public (European Community, 2005) and workforce (Office of Applied Studies, 2007), thus was appropriate to be used in this study. Each item was responded on a four-point Likert scale (from 0 = did not apply to me at all to 3 = applied to me very much or most of the time). DASS21 had good reliability ( $\alpha = .87-.94$ ; Antony, Bieling, Cox, Enns, & Swinson, 1998).

# Analysis Procedure

All data collected was first screened for outliers and the assumptions for parametric tests. Secondly, in order to compare mental health and mental health shame between Japanese and UK workers, t-tests were conducted. Finally, correlations between mental health and

mental health shame were measured and compared between these two populations. IBM SPSS version 25 was used for these analyses.

# Results

In the Japanese dataset, there was no outlier identified, using the outlier labelling rule (Hoaglin & Iglewicz 1987). In the UK dataset, one score in family attitudes, six scores in family external shame, two scores in depression, and five scores in anxiety were identified as outliers using the outlier labelling rule (Hoaglin & Iglewicz, 1987), and so were winsorised (Tukey, 1962). All the subscales demonstrated good reliability ( $\alpha \ge .78$ ). Table 1 summarises the descriptive statistics of each sample.

	Japanese Worke		UK W	orkers		
	М	SD	М	SD	t	df
Number (Males, Females)	131 (73, 58)		269 (1	90, 79)		
Age	40.31	11.17	35.18	9.91		
Depression (0-42)	20.66	6.60	11.81	9.52	12.69	393.65
Anxiety (0-42)	18.34	5.64	8.24	6.55	17.84	395.65
Stress (0-42)	23.68	7.38	12.64	7.02	15.71	352.58
Community Attitudes (0-12)	7.45	2.59	4.70	3.10	10.52	397.78
Family Attitudes (0-12)	5.84	2.26	3.28	3.40	12.32	379.03
Community External Shame (0-15)	10.62	4.30	6.46	4.19	10.24	389.98
Family External Shame (0-15)	6.85	2.96	3.86	4.60	12.55	369.15
Internal Shame (0-15)	11.14	4.29	7.27	4.02	9.27	354.34
Family-Reflected Shame (0-21)	12.6	4.25	7.67	5.69	11.16	397.73
Self-Reflected Shame (0-15)	6.96	2.82	4.54	4.56	10.29	371.04

 Table 1. Descriptive statistics and Welch t-tests of mental health and mental health shame

 between Japanese workers and UK workers

*p* < .001

### Comparing the Levels of Mental Health and Shame

Because not all of the subscales were normally distributed (Shapiro-Wilk's test; p < .05), data were square-root transformed to satisfy the assumption of normality. Levene's test for equality of variances indicated that homogeneity of variances for all scores was not maintained (p < .05), therefore Welch t-tests were conducted (Welch, 1947). Japanese workers had higher levels of mental health problems and mental health shame in all subscales than UK workers; anxiety had the greatest difference in the three mental health problems (t = 17.84), and family-relevant shame (family attitudes t = 12.32; family external shame t = 12.55, and family-reflected shame t = 11.16) had the greatest difference in all the mental health shame subscales (Table 1).

# **Comparing Correlations Between Mental Health and Shame**

Pearson's correlation was performed to explore correlations between mental health and mental health shame in Japanese workers and UK workers respectively.

		Japanese Workers (top triangle)											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Gender (1=M, 2=F)	-	-0.06	-0.01	-0.04	-0.14	-0.07	0.02	0.00	0.00	0.01	0.08	0.02
2	Age	35* *	-	25**	25* *	24* *	-0.02	-0.04	0.06	-0.14	-0.04	0.01	-0.01
3	Depression	.13*	18* *	-	.64* *	.67**	.35**	.27**	.37**	.29**	.38**	.36**	.26**
4	Anxiety	0.10	24* *	.75**	-	.75**	.30**	0.15	.35**	.25**	.33**	.43**	.35**
5	Stress	12*	-0.02	.70**	.71* *	-	.37**	.19*	.34**	.26**	.29**	.38**	.32**
6	Community Attitudes	0.12	19* *	.39**	.41* *	.34**	-	.23**	.73**	0.17	.43**	.30**	.24**
7	Family Attitudes	.22**	30* *	.46**	.45* *	.30**	.67**	-	.24**	.62**	.28**	.43**	0.07

Table 2. Correlations between mental health and shame

	Community External		19*		.35*								
8	Shame	.16**	*	.35**	*	.30**	.76**	.64**	-	.32**	.49**	.43**	.33**
	Family External		35*		.50*								
9	Shame	.30**	*	.48**	*	.28**	.61**	.85**	.63**	-	.27**	.48**	.32**
					.38*								
10	Internal Shame	0.07	-0.07	.35**	*	.26**	.50**	.48**	.54**	.48**	-	.63**	0.23
	Family Reflected		22*		.46*								
11	Shame	.23**	*	.48**	*	.29**	.60**	.64**	.64**	.69**	.60**	-	.38**
	Self Reflected		32*		.52*								
12	Shame	.25**	*	.49**	*	.34**	.55**	.63**	.55**	.70**	.42**	.69**	-
*p <	* $p < .05$ , ** $p < .01$ UK Workers (bottom triangle)												

In both populations, mental health and mental health shame were overall associated with each other (Table 2). Gender was related to depression, stress, family attitudes, community external shame, family external shame, family reflected shame and self reflect shame in UK workers, while gender was not related to any variable in Japanese workers. Age was related to mental health problems in both populations, while significant correlations between age and mental health shame were only seen in UK workers. Other differences were that while i) anxiety and family attitudes, ii) self reflected shame and family attitudes, and iii) self reflected shame and internal shame were significantly correlated in the UK workers, they were not in the Japanese workers.

### **Comparing Shame's Predictions of Mental Health**

In order to compare how each type of mental health shame predicted the variance in mental health problems, multiple regression analyses were conducted. Firstly, the three subscales of mental health problems were combined to calculate the level of mental health (Lovibond & Lovibond, 1995). At step one, gender and age were entered to statistically adjust for their effects, and at step two, the mental health shame subscales were entered. Adjusted coefficient of determination (Adj.  $R^2$ ) was reported. Multicollinearity was not a concern (VIF < 10). In the Japanese workers, ATMHP subscales accounted for 26% of the variance for mental health problems, indicating a medium effect size (Cohen, 1988), with age

and family reflected shame as significant predictors. By contrast, in the UK workers,

ATMHP subscales predicted only 5% of the variance for mental health problems, indicating a small effect size (Cohen, 1988), with gender and self reflected shame as significant predictors (Table 3).

	Jap	anese Worker	rs	UK Workers				
	В	SE <sub>B</sub>	β	В	SEB	β		
Step 1	5.34	0.26		5.33	0.49			
Gender (1=M, 2=F)	-0.13	0.11	-0.10	-1.17	0.21	-0.33**		
Age	-0.02	0.01	-0.28**	0.01	0.01	0.07*		
Adj. R <sup>2</sup>		0.07			0.13			
Step 2	2.75	0.46		4.02	0.57			
Gender	-0.14	0.09	-0.11	-1.19	0.21	-0.34**		
Age	-0.02	0.00	-0.28**	0.02	0.01	0.10		
Community Attitudes	0.21	0.15	0.16	0.33	0.18	0.17		
Family Attitudes	0.06	0.14	0.04	-0.08	0.18	-0.05		
Community External Shame	0.09	0.12	0.09	-0.08	0.15	-0.05		
Family External Shame	0.00	0.13	0.00	-0.20	0.15	-0.16		
Internal Shame	0.05	0.10	0.06	0.24	0.14	0.12		
Family Reflected Shame	0.27	0.12	0.25*	-0.01	0.14	-0.01		
Self Reflected Shame	0.20	0.11	0.15	0.31	0.11	0.23**		
$\Delta$ Adj. R <sup>2</sup>		0.26			0.05			
a Dependent Variable: Mental Hea	alth Problem	ns. * <i>p</i> < .05, *	* <i>p</i> < .01					

Table 3. Multiple regression: Mental health shame for mental health problems

# Discussion

This chapter compared mental health shame and mental health problems between Japanese and UK workers. Japanese workers had higher levels of mental health problems and mental health shame than UK workers. In both populations, mental health problems and mental health shame were related to each other, except anxiety and family attitudes, self reflected shame and family attitudes, and self reflected shame and internal shame were not associated with one another in Japanese workers. Lastly, self reflected shame was a significant predictor for mental health problems in UK workers, whereas family reflected shame was a significant predictor for mental health problems in Japanese workers.

Higher levels of mental health problems in Japanese workers may imply severe working conditions in Japan. Despite the new initiatives forcing them to work shorter hours, e.g., leaving the building by 8pm, many Japanese workers work outside of the office for many hours or do not take a lunch break (Muroi, 2019; Obic Business Consultants, 2019). Indeed, many workers still continued to work at a cafe or restaurant that opens late, enabled by the remote working technologies: these working hours are not on the company record, making their government report clean (Muroi, 2019; Obic Business Consultants, 2019). This suggests that policy changes alone do not change practice: cultural and societal changes are needed (Kawashima, 2018). Moreover, remote working technologies facilitate these increased work hours. This negative use of technologies can be explained by the collectivism in Japanese culture (e.g., in Japanese offices, no one wants to be the first one to leave; CNBC International, 2018). Advanced technologies offer us the *potential* to reduce working hours, however when not used properly, they can extend working hours, damaging workers' mental health. Employers and policy-makers need to be aware of the impact of culture, as policies and/or technologies alone cannot implement meaningful changes. Global companies in Japan may be in a better position to make effective changes as their organisational culture is not entirely Japanese: more non-traditional organisational practice is possible. For example, recently, Microsoft Japan conducted the "Work Life Choice Challenge 2019 Summer", where workers were paid for four Fridays in August without working (Jackman, 2019). The results were promising: their sales increased by 40%, pages printed dropped 59%, and electricity consumption dropped 23% compared with the same month last year. Microsoft workers used

technologies effectively, limiting the length and frequency of face-to-face meetings by using collaborative tools such as Microsoft Teams: almost all employees (94%) were satisfied with this attempt (McGregor, 2019). Employee mental health was not reported, but given their high satisfaction, this type of attempt should be implemented broadly in Japanese organisations and the mental health effects should be evaluated.

Strong associations between mental health and mental health shame were in line with previous findings (e.g., Kotera et al., 2019a, 2019b, 2019c). In both workforces, workers who felt strong shame tended to have mental health problems. This suggests that organisations need to consider how to reduce their employees' mental health shame. For example, self-compassion training was reported effective in reducing shame (Braehler et al., 2013; Kelly, Zuroff, Foa & Gilbert, 2010). Given the workers' high mental health shame, online self-compassion training, which is undertaken individually, may be more effective as they do not have to worry about colleagues knowing. Three-hour online self-compassion training attended by healthcare workers increased their self-compassion and mental wellbeing (Rao & Kemper, 2017). Such training should be implemented to Japanese and UK workers to reduce their mental health problems and mental health shame.

In Japanese workers, i) anxiety and family attitudes, ii) self reflected shame and family attitudes, and iii) self reflected shame and internal shame were not associated with one another, whereas these variables were associated with one another in the UK workers. This may be related with a rather Japan-unique phenomena, hikikomori (a severe form of social seclusion, where an individual does not leave the house for at least six months) among Japanese workers (Voiskounsky & Soldatova, 2019). Hikikomori is a serious problem in Japanese society (Cabinet Office, 2019). Hikikomori is associated with shame, where one feels ashamed of who they are, stopping them from going outside their home (Cole, 2013). Recent findings report that advanced technologies enable one to be a hikikomori, virtually

communicating with others online (Voiskounsky & Soldatova, 2019). Parallel with the 'uchisoto' notion in Japanese culture (Burt, Bachnik, & Quinn, 1995), Japanese workers are more conscious of how outsiders (e.g., colleagues) will see them, than how insiders (e.g., family members) will see them. This may help explain why these family related shame (i.e., family attitudes, and self reflected shame) variables were not related to other variables in Japanese workers.

In our regression analyses, self reflected shame was a significant predictor for mental health problems in UK workers, whereas family reflected shame was a significant predictor for mental health problems in Japanese workers. This suggests the difference of their cultural emphases: Japanese collectivism and UK's individualism. For many UK workers, their distress caused by worries that their family member's mental health problems would cause their image negatively (i.e., self reflected shame) predicted high mental health problems. In an individualistic culture, it is important to have a strong identity that separates them from their belonging groups, and expressing such differences are welcomed (Markus & Kitayama, 1991). Therefore, negative influences on their image from family members can be a concern. On the other hand, in a collectivistic culture, where one's identity is often determined by the group they belong to, meeting social expectations is valued (Markus & Kitayama, 1991). Japanese workers may feel that they have failed a social expectation by having a mental health problem, and may be afraid that such a disgrace may cause a negative perception towards their family. These differences can inform how organisations or in-house mental health practitioners need to approach their shame differently. For the UK workers, selfawareness training would be useful, as it helps them to have a strong sense of identity (O'Connor et al., 2003). Having a clear identity can help them cope with self reflected shame by reducing worries for being tarred by the same brush as other family members. For Japanese workers, providing clear and accurate information about mental health would be

useful, noting that anyone could suffer from a mental health problem. For example, educating people that the heritability of depression is about one third would be helpful (Matsumoto, Kunimoto, & Ozaki, 2013), and there are diverse causes for mental health problems (not only family but also other developmental, social, and environmental factors). These findings are especially useful for managers and HR staff in today's internationalised workplaces.

Lastly, it is noteworthy that recent studies and literature, employing the functionalist perspective of emotions, noted the positive aspects of shame (Mayer & Vanderheiden, 2019), which encourage positive changes in oneself (Lickel, Kushlev, Savalei, Matta & Schmader, 2014). Compared with regret and guilt, shame was an independent predictor for the desire for positive changes in oneself. Moreover, shame predicted creativity as a way to restore selfimage in the workplace, and exposure to a creative team environment positively impacted on this shame-creativity relationship (González-Gómez & Richter, 2015). These findings suggest that the interventions discussed above (e.g., compassion training, mental health education) may benefit from discussing the positive aspects of shame. Shame in a globalised workplace can be transformed into positive resources through respect, empathy and trust (Clarke & Takashiro, 2019). For example, Japanese senior managers noted that reframing (i.e., identifying positive aspects of what appears to be negative) was effective in their managerial practice (Kotera & Van Gordon, 2019). The authors' experience in developing workers' self-care attitudes using reframing, accords this: this type of exercise could be used to promote positive perspectives and attitudes towards shame.

While this chapter offers useful insights into mental health shame in modern workplaces in Japan and the UK, several limitations should be noted. Firstly, the participants were collected through opportunity sampling, limiting the generalisability of the findings. Secondly, the industries they worked in were not controlled and differed in the two samples; they were some differences between the two UK samples ( $p \ge .03$ ) but these were much smaller than the country differences: however, future research should examine the contribution of industry and organisational culture. Thirdly, measuring shame using self-report scales might limit their accuracy (Fan et al., 2006); for example, the social desirability biases (Latkin et al., 2017). Lastly, the causal direction of these relationships has not been analysed. Longitudinal data and intervention studies would help elucidate the temporal patterning of the observed relationships.

# Conclusion

Work mental health is a primary concern in Japan and the UK, and their shame culture was thought to be related to their high shame about mental health problems. We cross-culturally compared their mental health and mental health shame between Japan and the UK, and found that Japanese workers had higher levels of mental health problems and mental health shame. Mental health problems and shame were overall related to each other in both workforces. Mental health shame predicted medium effect size in the Japanese workers, while they predicted small effect size in the UK workers. Findings in this chapter can offer helpful insights into the importance of culture in terms of shame in the 4IR, and how a sense of shame can impact on workers' mental health cross-culturally. Reducing shame in workers using modalities such as online self-compassion training may be essential to the global workforce today, especially for people who are suffering from poor mental health that is partly caused by the technology.

### References

American Psychological Association (2013). Americans stay connected to work on weekends, vacation, and even when out sick. American Psychological Association Press Room. Retrieved from: http://www.apa.org/news/press/releases/2013/09/connected-work.aspx

Ando, S., Yamaguchi, S., Aoki, Y., & Thornicroft, G. (2013). Review of mental-healthrelated stigma in Japan. *Psychiatry and Clinical Neurosciences*, *67*, 471–482. doi:10.1111/pcn.12086.

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998).

Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, *10*(2), 176–181. https://doi.org/10.1037/1040-3590.10.2.176

AXA (2017). Generation stress: 4 in 5 Brits could be suffering burnout as a result of stress, AXA research reveals. Retrieved from https://www.axa.co.uk/newsroom/mediareleases/2017/generation-stress-research/

Benedict, R. (1946). The chrysanthemum and the sword: patterns of Japanese culture. Boston, MA: Houghton Mifflin.

Burt, S. M., Bachnik, J. M., & Quinn, C. J. (1995). Situated meaning: Inside and outside in Japanese self, society and language. Language, 71(2), 402. doi:10.2307/416181 Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2013). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology, 52*(2), 199–214. https://doi.org/10.1111/bjc.12009

Cabinet Office. (2019). Survey in life conditions [Seikatsujoukyou ni kansuru chousa]. Author: Tokyo. Cascio, W. F. (n.d.). Managing a Virtual Workplace. *The Academy of Management Executive* (1993-2005). Academy of Management. https://doi.org/10.2307/4165661

Clarke, C.H. & Takashiro, N. (2019). Transforming shame to collective pride and social equity in bicultural organizations in Japan. In C.H., Mayer. & E., Vanderheiden. *The bright side of shame: Transforming and growing through practical applications in cultural contexts*. Basel: Springer.

CNBC International. (2018). Why does Japan work so hard? | CNBC Explains [Video file]. Retrieved from https://www.youtube.com/watch?v=9Y-YJEtxHeo&t=182s

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. L. Erlbaum Associates.

Cole, L.W. (2013). Japanese culture-bound disorders: The relationship between "Taijin Kyofusho, Hikikomori," and shame. Doctoral Thesis, Biola University.

Corrigan, P. (2004, October). How stigma interferes with mental health care. *American Psychologist*. https://doi.org/10.1037/0003-066X.59.7.614

Day, A., Scott, N., & Kelloway, E. K. (2010). Information and communication technology: Implications for job stress and employee well-being. *Research in Occupational Stress and Well Being*, *8*, 317–350. https://doi.org/10.1108/S1479-3555(2010)0000008011

Elias, N. (1979). The Civilizing Process: Sociogenetic and Psychogenetic Investigations. Hoboken, NJ: Blackwell.

European Community. (2005) Improving the mental health of the population: Towards a strategy on mental health for the European Union. Brussels: Author.

Fan, X., Miller, B., Park, K.-E., Winward, B., Christensen, M., Grotevant, H., & Tai, R.
(2006). An exploratory study about inaccuracy and invalidity in adolescent self-report
surveys. *Field Methods*, *18*, 223-244. https://doi.org/10.1177/152822X06289161

Gilbert, P. (1998). What is shame? Some core issues and controversies. In Gilbert, P. &Andrews, B. (Eds.). Shame: Interpersonal behaviour, psychopathology and culture. (pp. 3-36). New York, NY: Oxford University Press.

Gilbert, P., Bhundia, R., Mitra, R., McEwan, K., Irons, C., & Sanghera, J. (2007). Cultural differences in shame-focused attitudes towards mental health problems in Asian and Non-Asian student women. *Mental Health, Religion & Culture, 10*(2), 127–141.

https://doi.org/10.1080/13694670500415124

González-Gómez, H. & Richter, A. (2015). Turning shame into creativity: The importance of exposure to creative team environments. *Organizational Behavior and Human Decision Processes*, *126*, 142-161. https://doi.org/10.1016/j.obhdp.2014.09.004

Harman, R., & Lee, D. (n.d.). The role of shame and self-critical thinking in the development and maintenance of current threat in post-traumatic stress disorder. *Clinical Psychology & Psychotherapy*, *17*(1), 13–24. https://doi.org/10.1002/cpp.636

Hikita, S. (2004). Zenkiroku terebi sichouritsu 50 nen sensou [All the record for the 50-yearwar of TV programme rating]. Tokyo: Kodansha.

Hoaglin, D. C., & Iglewicz, B. (1987). Fine-Tuning Some Resistant Rules for Outlier Labeling. *Journal of the American Statistical Association*, 82(400), 1147.

https://doi.org/10.2307/2289392

Inoue, T. (2007). Sekentei no kouzou-syakaishinrigakushi heno kokoromi [The structure of decency—Challenge for the history of social psychology]. Tokyo: Kodansha.

Ito, H., & Aruga, T. (2018, August 1). Japan imposes a legal overtime cap, but mental health issues are complex. *The Lancet Psychiatry*. Elsevier Ltd. https://doi.org/10.1016/S2215-0366(18)30266-9

Jackman, S. (2019). Microsoft Japan says four-day work week boosted productivity 40%. Retrieved from https://www.bloomberg.com/news/articles/2019-11-04/microsoft-japan-says-four-day-work-week-boosted-productivity-40

Kawashima, Y. (2018). Karoshi and Japan's Work Style Reform. Retrieved from

https://ksr.hkspublications.org/2018/08/02/karoshi-and-japans-work-style-reform/

Kelly, A., Zuroff, D., Foa, C. & Gilbert, P. (2010). Who benefits from training in selfcompassionate self-regulation? A study of smoking reduction. Journal of Social and Clinical Psychology, 29(7), 727-755. https://doi.org/10.1521/jscp.2010.29.7.727

Kestel, D. (2019). Mental health in the workplace. Retrieved August 19, 2019, from

https://www.who.int/news-room/commentaries/detail/mental-health-in-the-workplace

Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: a meta-analytic review. *Psychological Bulletin*, *137*(1), 68–96.

https://doi.org/10.1037/a0021466

Kim, T., Kang, M. Y., Yoo, M. sang, Lee, D., & Hong, Y. C. (2016). Computer use at work is associated with self-reported depressive and anxiety disorder. *Annals of Occupational and Environmental Medicine*, *28*(1). https://doi.org/10.1186/s40557-016-0146-8

Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work-family

effectiveness. Journal of Vocational Behavior, 68(2), 347-367.

https://doi.org/10.1016/j.jvb.2005.07.002

Kotera, Y., Adhikari, P., & Van Gordon, W. (2018). Motivation Types and Mental Health of UK Hospitality Workers. *International Journal of Mental Health and Addiction*, *16*(3), 751–763. https://doi.org/10.1007/s11469-018-9874-z

Kotera, Y. & Van Gordon, W. (2019). Japanese managers' experiences of Neuro-Linguistic Programming: A qualitative investigation. *Journal of Mental Health Training, Education and Practice, 14*(3), 174-185. doi: 10.1108/JMHTEP-06-2018-0033

Kotera, Y., Conway, E., & Van Gordon, W. (2019) Mental health of UK university business students: Relationship with shame, motivation and self-compassion. Journal of Education for Business. 94(1), 11-20. doi: 10.1080/08832323.2018.1496898

Kotera, Y., Gilbert, P., Asano, K., Ishimura, I., & Sheffield, D. (2019a). Self-criticism and self-reassurance as mediators between mental health attitudes and symptoms: Attitudes toward mental health problems in Japanese workers. *Asian Journal of Social Psychology*, *22*(2), 183–192. https://doi.org/10.1111/ajsp.12355

Kotera, Y., Green, P., & Sheffield, D. (2019b) Mental health attitudes, self-criticism, compassion, and role identity among UK social work students. British Journal of Social Work, 49(2), 351–370. doi: 10.1093/bjsw/bcy072

Kotera, Y., Green, P., & Sheffield, D. (2019c). Mental Health Shame of UK Construction Workers: Relationship with Masculinity, Work Motivation, and Self-Compassion. *Revista de Psicología Del Trabajo y de Las Organizaciones*, *35*(2), 135–143.

https://doi.org/10.5093/jwop2019a15

Latkin, C.A., Edwards, C., Davey-Rothwell, M.A. & Tobin, K.E. (2017). The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore. Addictive Behaviour, 73, 133-136. doi: 10.1016/j.addbeh.2017.05.005

Lickel, B., Kushlev, K. Savalei, V. & Schmader, T. (2014). Shame and motivation to change the self. *Emotion*, *14*(6), 1049-1061. doi: 10.1037/a0038235

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour Research and Therapy, 33(3), 335-343. doi: 10.1016/0005-7967(94)00075-U

Maekawa, Y., Ramos-Cejudo, J., & Kanai, A. (2016). Help-seeking among male employees in Japan: Influence of workplace climate and distress. *Journal of Occupational Health*, *58*(6), 632–639. doi: 10.1539/joh.16-0052-OA.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224–253. doi:10.1037/0033-295X.98.2.224

Matos, M., & Pinto-Gouveia, J. (n.d.). Shame as a traumatic memory. *Clinical Psychology & Psychotherapy*, *17*(4), 299–312. https://doi.org/10.1002/cpp.659

Matos, M., Pinto-Gouveia, J., & Gilbert, P. (n.d.). The effect of shame and shame memories on paranoid ideation and social anxiety. *Clinical Psychology & Psychotherapy*, *20*(4), 334– 349. https://doi.org/10.1002/cpp.1766

Mayer, C.H. & Vanderheiden, E. (2019). *The bright side of shame: Transforming and growing through practical applications in cultural contexts*. Basel: Springer.

Mazmanian, M., Orlikowski, W. J., & Yates, J. A. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*, *24*(5), 1337–1357. https://doi.org/10.1287/orsc.1120.0806

McGregor, J. (2019). In overworked Japan, Microsoft tested a four-day workweek.

Productivity soared 40 percent. Retrieved from

https://www.washingtonpost.com/business/2019/11/04/overworked-japan-microsoft-tested-four-day-workweek-productivity-soared-percent/?

Ministry of Health, L. and W. (2014). *Revision of the laws about welfare for mental health and people with mental health disorders [Seishinhoken oyobi seishinshougaisha fukushi ni kansuru houritsuno ichibu wo kouseisuru houritsunado no sekoujikouno shousainitsuite]*.

Tokyo. Retrieved from

https://www.mhlw.go.jp/seisakunitsuite/bunya/hukushi\_kaigo/shougaishahukushi/kaisei\_seisi n/dl/shikou\_gaiyo.pdf

Ministry of Health, Labour and Welfare. (2013). Roudou anzen eisei tokubetsu chousa (Roudousha kenkou joukyou chousa) no gaikyou [Summary of Labour safety hygiene special research (Workers health status research)]. Retrieved from

http://www.mhlw.go.jp/toukei/list/dl/h24-46-50\_05.pdf

Ministry of Health, Labour and Welfare. (2016). Karoushitouboushitaisaku hakusho

[Karoshi whitepaper]. Retrieved from

http://www.mhlw.go.jp/wp/hakusyo/karoushi/16/dl/16-1.pdf

Moberly, T. (2015). Two thirds of doctors think NHS has "blame and shame" culture. BMJ,

350. doi: https://doi.org/10.1136/bmj.h2272

Muroi, K. (2019). More workers are suffering from non-recorded overtime?

[Hatarakikatakaikakuhousekou ni hitsuu na koe 'mienai sa-bisu zangyou' ga manen?]

Retrieved from https://www.excite.co.jp/news/article/Real\_Live\_46856/

Nakazawa, T., Okubo, Y., Suwazono, Y., Kobayashi, E., Komine, S., Kato, N., & Nogawa,

K. (2002). Association between duration of daily VDT use and subjective symptoms.

American Journal of Industrial Medicine, 42(5), 421–426. https://doi.org/10.1002/ajim.10133

Nitobe, I. (1900). Bushido: The soul of Japan. Philadelphia: The Leeds and Biddle Company.

Obic Business Consultant (2019). No effects for 'the initiative to reduce overtime work'?

[Sono 'zangyo sakugen no torikumi' kouka nashi?] Retrieved from

https://www.obc.co.jp/360/list/post66

Office of Applied Studies (2007). The NSDUH Report: Depression among adults employed full-time. Available at: http://www.sprc.org/resources-programs/nsduh-report-depression-among-adults-employed-full-time-occupational-category

Olson-Buchanan, J. B., & Boswell, W. R. (2006). Blurring boundaries: Correlates of integration and segmentation between work and nonwork. *Journal of Vocational Behavior*, *68*(3), 432–445. https://doi.org/10.1016/j.jvb.2005.10.006

Peakman, J. (2009). Blaming & shaming in whores' memoirs. *History Today*, *59*(8), 33-39.
Rao, N. & Kemper, K.J. (2017). Online training in specific meditation practices improves gratitude, well-being, self-compassion, and confidence in providing compassionate care among health professionals. Journal of Evidence-Based Integrative Medicine, 22(2), 237-241. doi: 10.1177/2156587216642102

Sheehy, K., Noureen, A., Khaliq, A., Dhingra, K., Husain, N., Pontin, E., Cawley, R., &

Taylord, P. (2019). An examination of the relationship between shame, guilt and self-harm: A systematic review and meta-analysis. Clinical Psychology Review, 73.

https://doi.org/10.1016/j.cpr.2019.101779

Skårderud, F. (2007). Shame and pride in anorexia nervosa: A qualitative descriptive study.

European Eating Disorders Review, 15(2), 81-97. https://doi.org/10.1002/erv.774

Stevenson, D., & Farmer, P. (2017). Thriving at work. London. Retrieved from

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data

/file/658145/thriving-at-work-stevenson-farmer-review.pdf

Tanaka, G., Ogawa, T., Inadomi, H., Kikuchi, Y., & Ohta, Y. (2003). Effects of an educational program on public attitudes towards mental illness. Psychiatry and Clinical

Neurosciences, 57(6), 595-602. doi: 10.1046/j.1440-1819.2003.01173.x

Tangney, J. P., Wagner, P., & Gramzow, R. (1992). Proneness to Shame, Proneness to Guilt, and Psychopathology. *Journal of Abnormal Psychology*, *101*(3), 469–478.

https://doi.org/10.1037/0021-843X.101.3.469

The Prime Minister of Japan and His Cabinet. (2016). Hatarakikatakaikaku jitsugenkaigi [Committee for realisation of reform of the working style]. Retrieved from http://www.kantei.go.jp/jp/singi/hatarakikata/

Townsend, A. M., DeMarie, S. M., & Hendrickson, A. R. (n.d.). Virtual Teams: Technology and the Workplace of the Future. *The Academy of Management Executive (1993-2005)*. Academy of Management. https://doi.org/10.2307/4165474

Tukey, J.W. (1962). The future of data analysis. Annals of Mathematical Statistics, 33(1), 1–67.

Voiskounsky A.E. & Soldatova G.U. (2019). Epidemic of loneliness in a digital society: Hikikomori as a cultural and psychological phenomenon. Counseling Psychology and Psychotherapy, 27(3), 22–43. doi:10.17759/cpp.2019270303.

von Raumer, K. (1857). Geschichte der Pädagogik [History of Pedagogy]. ZeitSamuel Liesching.

Vos, T., Barber, R. M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I., ... Murray, C. J. (2015). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, *386*(9995), 743–800. https://doi.org/10.1016/S0140-6736(15)60692-4

Welch, B. L. (1947). The generalisation of student's problems when several different population variances are involved. *Biometrika*, *34*(1–2), 28–35.

https://doi.org/10.1093/biomet/34.1-2.28