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Factors Related to Perceptions of Financial Resources for Disaster Mental Health Services in South Korea

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Abstract

This study examined the factors influencing preferences for financial resources for post-disaster mental health services, such as out-of-pocket payment and tax burden. The data were collected from 2,928 individuals in South Korea who were classified into three groups according to their preference for financial resources: out-of-pocket payment, tax-based financing, or no preference. A logistic regression was performed to assess the predictive power of each variable in each group. The significant psychosocial factors influencing preference for out-of-pocket payment, compared to the no-preference group, included the perception of the time to recover from post-disaster mental health problems, the perception of importance of national support, and public stigma of seeking mental health services. On the other hands, external attribution for mental illness, the perception of the time to recover from post-disaster mental health problems, the perception of importance of national support, and self and public stigma of seeking mental health services significantly predicted the group who preferred tax-based financing.

Key words: disaster relief, mental health, financial resources, out-of-pocket payment, taxation

Ⅰ. Introduction

Since supporting the mental health of disaster victims is so important, preparing the financial resources to provide these services as a social welfare service is a vital national project. To respond to the increasing demand for a link between mental health support and comprehensive welfare, it is important to find stable sources of financial funding. Public resources such as taxation and social insurance have been regarded as primary financial resources for various types of mental health services (Dixon, *et. al.*, 2006; Saxena, *et. al.*, 2003) and their use is inevitable for post-disaster mental health services.

Although the use of public financial resources is inevitable for post-disaster mental support to become a widespread social welfare service, its discussion has remained controversial in society. With recognition of the long-lasting suffering of disaster victims and of social

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costs of disaster dur to job and family loss, mental suffering of disaster victims has now been publicly recognized as a subject of national support systems (Park, 2014; Min, 2016). However, some argue that offering mental health service free of charge to victims from public resources is a populist policy (Seo, 2013).

In order to reach societal consensus on financial resources for post-disaster mental support, it is necessary to understand the characteristics of individuals who prefer certain financial resources.

Most studies on financing resources have focused on welfare state development or public attitudes toward overall welfare (Svallfors, 2004), and there is an increasing demand for studies on perceptions and attitudes toward welfare sub-areas (Seo, 2014: 124). To ensure the public value of mental health services for disaster victims, societal consensus on the best type of financial funding for services is needed. Despite this, individuals' perceptions of and preferences for the various types of financial resources for disaster mental health services have not yet been investigated. When considering financial resources to help those who have experienced trauma, including disaster victims, there are two types of resources that are generally considered. These are taxation as a public resource and out-of-pocket (OOP) payment as a private resource and are often compared in terms of size, stability, and flexibility.

We investigated the public perception of financial resources for post-disaster mental health services in order to review the perceived legitimacy of these mental health services. Moreover, we sought to confirm the psychosocial variables that significantly influence individuals' preference for financial resources, even after adjusting for the predictive power of demographic variables. Through this, the present study is expected to provide necessary information to gauge the current level of social consensus on the public nature and legitimacy of post-disaster mental health support services and to improve public support for relieving the distress experienced by disaster victims.

II. Theoretical Background

1. Public Financial Resources for Social Services

Public resources are substantial in size and can be supplied more reliably to targeted sectors than private resources. When taxation is the dominant source of finance, people with mental health problems are not excluded from access to treatment because of employment status, thus meeting equity criteria (Dixon, *et. al.*, 2006). However, due to the inflexible nature of public resources, resource allocation is often based on historical expenditure patterns, and related services are likely to be both insufficient and inefficient. Private resources, however, are flexible; private financing for mental health services can be sensitive to changes in communities and consumer needs (Seo, 2014: 122-123), while also promoting efficiency. However, especially with OOP payment, private resources have a disadvantage in that the supply and benefits of mental health services are distributed according to ability to pay, resulting in inequitable access to services (Dixon, *et. al.*, 2006).

Financial resources for social services are linked to the discussion of the service's public nature, including the differences between private and public responsibilities and the transition from private to public responsibilities. Moreover, public funding implies that citizens themselves become responsible for costs (Nutt & Backoff, 1993; Yang, 2013: 99-101). In other words, if people perceive an issue not to be a public concern, they may not be willing to invest in public resources to address the issue.

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2. Review of Factors Influencing the Perception of Financial Resources for Social Services

At present, investigating the public perception of what financial resources should be used to provide mental health services after disasters would provide critical information on the social agreement that has been made regarding the public nature of post-disaster mental health services. Moreover, to prepare strategies to expand the public nature of these services, factors that may influence the perception of financial resources should be investigated. According to previous studies regarding funding for social welfare programs, factors that influenced preference for certain financial resources included respondents' financial status (Lipsmeyer & Nordstrom, 2003; Ryu, 2004; Ryu & Choi, 2009; Seo, 2014; Sihvo & Uusitalo, 1995; Svallfors, 2004), sex (Lipsmeyer & Nordstrom, 2003; Ryu, 2004; Ryu & Choi, 2009; Seo, 2014; Svallfors, 2004), age (Ryu, 2004; Sihvo & Uusitalo, 1995), educational background (Ryu, 2004; Ryu & Choi, 2009; Seo, 2014; Sihvo & Uusitalo, 1995), and subjective health status (Seo, 2014). However, previous studies have been limited as they mainly focused on the predictive power of demographic variables; they did not fully investigate factors that influence preference for financial resources from multiple perspectives. Further, various psychosocial variables may influence preference for financial resources (Ryu, 2004); therefore, these should also be considered.

This study classified various variables that were expected to influence preference for certain financial resources into three categories: socio-demographic variables, awareness of disaster and mental health, and attitude of disaster mental health service. Specifically, sex, age, disaster experience, and financial satisfaction were classified as socio-demographic variables, and potential risk assessment of disaster and mental health problems, external attribution for mental illness, and time to recover from post-disaster mental health problems were classified as awareness of disaster and mental health. Perceived importance of national support for post-disaster mental health problems and negative perspective of seeking mental health service were classified as attitude of disaster mental health service.

Perception of potential risk assessment of disaster and mental health problems refer to individual perception of the possibility of a disaster, and how much mental health distress one expects to experience because of the disaster. Based on previous findings which indicated that individual perception of current or potential benefits and an expectation of future benefits determines their policy preference (Lipsmeyer & Nordstrom, 2003), we expected that higher perception of disaster risk and risk of mental health problems after experiencing a disaster would increase the expectation for mental health services and influence individual preference for what financial resources would be used.

Attribution for mental illness refers to the perception of whether the responsibility for mental health lies with individuals or external factors, such as socio-environmental factors. Previous studies reported that the belief that poverty is caused by personal, not social, factors is significantly related to an individual's support of the expansion of welfare services through public financial resources (Lee & Park, 2016; Shirazi & Biel, 2005). We examined whether this finding would also apply to preferences for what financial resources would be used to provide mental health services after a disaster.

Time to recover from post-disaster mental health problems was measured by participant responses to a question assessing the length of time required for disaster victims to recover from their post-disaster psychological distress. The social consensus for financing for chronic diseases in the public health is to expand the public

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sector. According to previous studies, individuals with chronic disease had significantly higher odds of experiencing catastrophic health expenditure than those without chronic disease and the OOP payment for chronic conditions pushes people into poverty so the sizable public sector expenditure is needed (Bhojani, *et. al.*, 2012: 10-11; Knaul, *et. al.*, 2015: 1514-1515). Based on this, we expected that participants who believe longer time would be required for mental health recovery will likely perceive that it will be difficult for disaster victims to use mental health service at personal expense and tested whether perceived length of required time would significantly influence preference for different financial resources.

The perceived importance of national support for post-disaster mental health problems was measured through a question assessing how important participants believed national support was for mental health after a disaster. We expected that those who perceived higher importance of national support for mental health would likely support public resources rather than private resources for problem solving, thus influencing preference for certain financial resources.

Negative perspective of seeking mental health service refers to a negative perception of seeking expert help (Vogel, *et. al.*, 2008), which can be classified into self-stigma and public stigma. Here, self-stigma is defined as a decrease in self-value caused by recognizing one's self as a socially unacceptable -person, and public stigma refers to an individual's perception created by others (Corrigan, 2004; Jung & Kim, 2009). In mental illness, the public stigma is the perception held by others that the mentally ill individual is socially undesirable (Latalova, *et. al.*, 2014: 1399-1400).

Self or public stigma about receiving mental health services, such as psychotherapy and counseling, interferes with seeking professional help in cases of mental hardship (Clement, *et. al.*, 2015; Yi & Tidwell, 2005), thus lowering service accessibility and use (Shin, 2002). Consequently, we expected that such stigma would influence participants' preference for financial resources as they would underestimate the public importance of mental health services after a disaster.

Ⅲ. Research Methodology

1. Participants and Data Collection

A data collection agency was consulted to conduct phone surveys with participants aged ≥ 50 years and online surveys with participants aged 19–49 years across South Korea. Before conducting surveys, participants were asked to consent to participate, and only those who provided consent were surveyed. No compensation was provided. Moreover, to prevent bias for certain populations, participant allocation was conducted upon consideration of age, sex, and residence area.

Data were collected from 3,000 individuals in October 2018 (phone interviews, n = 1,385; online surveys, n = 1,615). Seventy-two individuals who were currently working in disaster-related positions were excluded; therefore, the data from 2,928 participants were analyzed, including1,425 (48.7%) men and 1,503 (50.6%) women. Their mean age was 49.04 ± 17.09 years (range = 19–95 years). The distribution of participants' age, sex, educational background, and residence is shown in <Table 1>.

2. Ethical Considerations

The present study was approved by the institutional review board at the ** for data use and analysis (No. 116271-2019-08). It was conducted in accordance with the Helsinki Declaration, as revised in 2004.

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Table 1. Participants' general characteristics

		Group	All N = 2928 (%)	No preference n = 1132 (%)	Preference for OOP payment n = 406 (%)	Preference for taxation n = 1390 (%)	χ^2
Awareness of disaster and mental health	Risk assessment of disaster	High	2121 (72.4)	798 (70.5)	265 (65.3)	1058 (76.1)	24.26^{***}
		Middle	583 (19.9)	248 (21.9)	96 (23.6)	239 (17.2)	
		Low	224 (7.7)	86 (7.6)	45 (11.1)	93 (6.7)	
	Risk assessment of mental health problems	High	1733 (59.2)	637 (56.3)	206 (50.7)	890 (64.0)	32.40^{***}
		Middle	641 (21.9)	264 (23.3)	98 (24.1)	279 (20.1)	
		Low	554 (18.9)	231 (20.4)	102 (25.1)	221 (15.9)	
	External attribution for mental illness	High	1342 (45.8)	484 (42.8)	143 (35.2)	715 (51.4)	46.38^{***}
		Middle	906 (30.9)	383 (33.8)	134 (33.0)	389 (28.0)	
		Low	680 (23.2)	265 (23.4)	129 (31.8)	286 (20.6)	
	Time to recover from post-disaster mental health problems	Less than 1 month	304 (10.4)	122 (10.8)	65 (16.0)	117 (8.4)	40.73^{***}
		Less than 6 months	723 (24.7)	292 (25.8)	113 (27.8)	318 (22.9)	
		Less than 1 year	659 (22.5)	268 (23.7)	87 (21.4)	304 (21.9)	
		Less than 2–3 years	513 (17.5)	182 (16.1)	70 (17.2)	261 (18.8)	
		Lifetime	729 (24.9)	268 (23.7)	71 (17.5)	390 (28.1)	
Socio-demographical factors	Sex	Male	1425 (48.7)	559 (49.4)	161 (39.7)	705 (50.7)	15.77^{***}
		Female	1503 (51.3)	573 (50.6)	245 (60.3)	685 (49.3)	
	Age	20s	489 (16.7)	201 (17.8)	49 (12.1)	239 (17.2)	131.70^{***}
		30s	480 (16.4)	177 (15.6)	38 (9.4)	265 (19.1)	
		40s	581 (19.8)	193 (17.0)	50 (12.3)	338 (24.3)	
		50s	517 (17.7)	195 (17.2)	84 (20.7)	238 (17.1)	
		60s	412 (14.1)	178 (15.7)	72 (17.7)	162 (11.7)	
		70s	449 (15.3)	188 (16.6)	113 (27.8)	148 (10.6)	
	Education	≤ Middle school	485 (16.6)	200 (17.7)	122 (30.0)	163 (11.7)	107.92^{***}
		High school	778 (26.6)	334 (29.5)	112 (27.6)	332 (23.9)	
		University/ college	1472 (50.3)	540 (47.7)	150 (36.9)	782 (56.3)	
		≥ Graduate school	193 (6.6)	58 (5.1)	22 (5.4)	113 (8.1)	
	Disaster experience	No	2478 (84.6)	971 (85.8)	354 (87.2)	1153 (82.9)	6.21
		Yes	450 (15.4)	161 (14.2)	52 (12.8)	237 (17.1)	
	Financial satisfaction	High	825 (28.2)	328 (29.0)	116 (28.6)	381 (28.2)	10.05^{*}
		Middle	1359 (46.4)	549 (48.5)	190 (46.8)	1359 (46.4)	
		Low	744 (25.4)	255 (22.5)	100 (24.6)	744 (25.4)	
Attitude to disaster mental health service	Importance of national support for post-disaster mental health problems	High	2538 (86.7)	965 (85.2)	311 (76.6)	1262 (90.8)	70.65^{***}
		Middle	320 (10.9)	147 (13.0)	70 (17.2)	103 (7.4)	
		Low	70 (2.4)	20 (1.8)	25 (6.2)	25 (1.8)	
	Self-stigma of seeking mental health service	High	419 (14.3)	180 (15.9)	85 (20.9)	154 (11.1)	73.85^{***}
		Middle	542 (18.5)	244 (21.6)	98 (24.1)	200 (14.4)	
		Low	1967 (67.2)	708 (62.5)	223 (54.9)	1036 (74.5)	
	public stigma of seeking mental health service	High	383 (13.1)	164 (14.5)	83 (20.4)	136 (9.8)	74.17^{***}
		Middle	514 (17.6)	233 (20.6)	90 (22.2)	191 (13.7)	
		Low	2031 (69.4)	735 (64.9)	233 (57.4)	1063 (76.5)	

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

3. Definition of Variables

For preference for financial resources, which was the dependent variable, we assessed how appropriate participants believed it was to use OOP payment and taxation financial resources for mental health support for disaster victims. Responses were made using a 5-point Likert scale (1: very inappropriate, 5: very appropriate). Then we subtracted the score from their preference for OOP

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Table 2. Frequency of preference for financial resources for post-disaster mental health services

	Preference for taxation (n = 1390)				No preference (n = 1132)	Preference for OOP payment (n = 406)			
	4	3	2	1	0	-1	-2	-3	-4
Frequency (%)	53 (1.8)	117 (4.0)	421 (14.4)	799 (27.3)	1132 (38.7)	291 (9.9)	102 (3.5)	10 (0.3)	3 (0.1)

payment from their preference for taxation. When the difference was greater than zero, participants were classified as the group that preferred taxation over OOP payment. When the difference was smaller than zero, participants were classified as the group that believed OOP payment was more appropriate than taxation. There were 1,390 (47.5%) in the group that preferred taxation, 1,132 (38.7%) in the group that had no preference, and 406 (13.8%) in the group that preferred OOP payment <Table 2>.

The awareness of disaster and mental health category comprised four variables. First, the potential risk assessment of disaster was measured through the following item, which was answered on a 5-point Likert scale (1: very unlikely, 5: very likely): “I may experience a sudden disaster.” The potential risk assessment of mental health problems was measured on the same 5-point Likert scale through the item, “I will not experience mental health issues even if I experience a disaster.” Responses were reverse-scored to facilitate the interpretation of the results. Third, for external attribution for mental health illness, participants were asked to rate their agreement with the following statement on a separate 5-point Likert scale (1: strongly disagree, 5: strongly agree): “Poor recovery for disaster victims has more to do with social reasons, such as lack of appropriate support and treatment, bias, and negative social perception, rather than individual reasons, such as past medical history and lack of willpower.” Lastly, for the time to recover from post-disaster mental health problems, participants were asked to answer a question regarding the length of time it took for disaster victims to recover from psychological trauma and suffering caused by a disaster, by choosing one of the following: 1 week, 1 month, 6 months, 1 year, 2–3 years, and lifelong recovery.

The attitude to disaster mental health service category comprised three variables. For the perceived importance of national support for post-disaster mental health problems, participants were asked to respond to the following: “it is important for the national government to support mental recovery of disaster victims” on a 5-point Likert scale (1: strongly disagree, 5: strongly agree). Self- and public stigma of seeking mental health service were measured on a 5-point Likert scale (1: strongly disagree, 5: strongly agree) through the following items: “Receiving consultation or psychiatric treatment due to disaster experience would be a personal flaw” and “Other people will see me as lacking willpower.”

For all variables except the time to recover from post-disaster mental health problems, those who responded “strongly disagree” and “disagree” were classified as the low perception group; those who responded “neutral” were classified as the middle perception group; and those who responded “strongly agree” and “agree” were classified as the high perception group.

4. Statistical Analyses

Data were analyzed using SPSS 21.0 for Windows (IBM, Armonk, NY, USA). Chi-square tests were conducted to assess general characteristics and the characteristics of the groups that preferred OOP payment, preferred taxation, and had no preference. Variables that had significant

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predictive power for financial resources for post-disaster mental health services in the chi-square tests were further analyzed through a logistic analysis of a univariate simple regression model. Subsequently, backward elimination was conducted to confirm the final regression model.

Ⅳ. Results

1. General Characteristic of Participants

Participant's general characteristics are shown in <Table 2>. There were significant differences in socio-demographic factors including sex ratio(χ^2=15.77, p< .001), age(χ^2=131.70, p< .001), educational level(χ^2=107.92, p< .001), and financial satisfaction(χ^2=10.05, p < .05) among three groups (<Table 2>). In the group that had no preference, 17.8% were in their 20s, and 50.6% were female; 47.7% had university or college degrees, and 48.5% reported middle-level financial satisfaction. In the group that preferred OOP payment, 27.8% were in their 70s, and 60.3% were female; 36.9% had university or college degrees, and 46.8% reported middle-level financial satisfaction. In the group that preferred taxation, 24.3% were in their forties, and 49.3% were female; 56.3% had university or college degrees, and 46.4% reported middle-level financial satisfaction.

2. Awareness of disaster and mental health

Of all participants, 72.4% were in the high disaster risk perception group, and 59.2% were in the high disaster mental health risk perception group. For the three groups with different preference for financial resources, many participants had high disaster risk perception (no preference = 70.5%, OOP payment = 65.3%, and taxation = 76.1%) and high disaster mental health risk perception (56.3%, 50.7%, and 64.0%, respectively).

For external attribution for mental illness, 45.8% of all participants perceived high external attribution. The frequency of high external attribution for mental illness in the three groups is described in <Table 1>. In the group that had no preference, 42.8% responded high external attribution, 35.2% were in the group that preferred OOP payment, and 51.4% were in the group that preferred taxation.

Lastly, for the time to recover from post-disaster mental health problems, the two responses which received the largest proportion from participants were a lifetime (24.9%) and less than 6 months (24.7%). For group comparisons, 25.8% (no preference) and 27.8% (preferred OOP payment) responded with less than 6 months. Meanwhile, 28.1% of the group that preferred taxation thought that a lifetime of recovery would be required <Table 1>.

3. Attitude to disaster mental health service

For the importance of national support for post-disaster mental health problems, 86.7% of all participants responded that national support for post-disaster mental health problems is important. This included 85.2% of the group without any preference for financial resources, 76.6% of the group that preferred OOP payment, and 90.8% of the group that preferred taxation.

For the self- and public stigma of seeking mental health service, 67.2% and 69.4% of all participants had low self- and public stigma, respectively, and most participants in the three groups with different preferences had low self- and public stigma (self-stigma: 62.5%, 54.9%, and 74.5%, respectively; public stigma: 64.9%, 57.4%, and 76.5%, respectively; <Table 1>). This indicated that the group preferred OOP payment had the lowest stigma associated with seeking mental health treatment.

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4. Relationships between study variables

To confirm the variables that influence participants' preference for financial resources, variables that were significant in the chi-square tests were further analyzed through logistic analyses of a univariate simple regression model, and backward elimination was conducted to confirm the final regression model.

The predictive power of potential risk assessment of disaster and mental health problems were non-significant; therefore, these variables were excluded from the final model. Women and older participants were significantly more likely to be in the group that preferred OOP payment as compared to the group without preference. For awareness of disaster and mental health, those who perceived that a shorter time would be required for mental recovery were significantly more likely to belong to the group that preferred OOP payment than the group without preference. For attitude to disaster mental health service, those who perceived less importance of national support for post-disaster mental health problems and those with higher public stigma of seeking mental health service were significantly more likely to belong to the group that preferred OOP payment than the group without preference.

In contrast, those with a higher educational background and lower financial satisfaction were significantly more likely to belong to the group that preferred taxation than the group without preference. For awareness of disaster and mental health, those with higher external attribution for mental health issues and those who perceived that a longer time would be required for mental recovery were significantly more likely to belong to the group that preferred taxation as compared to the group without preference. For attitude to disaster mental health service, those who perceived greater importance of national support for post-disaster mental health problems and those with lower self- and public stigma of seeking mental

Table 3. Multi-nominal logistic regression analysis result (Base group = No preference)

		Univariate model				Multivariate model			
		Preference for OOP payment		Preference for taxation		Preference for OOP payment		Preference for taxation	
		OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Socio-demographical factors	Sex	1.49**	1.18–1.87	.95	.81–1.11	1.63***	1.28–2.08	.91	.77–1.07
	Age (years)	1.24***	1.16–1.33	.90***	.86–.95	1.20***	1.10–1.30	.98	.93–1.04
	Education	.74***	.65–.84	1.35***	1.23–1.49	1.00	.85–1.18	1.25***	1.11–1.40
	Financial satisfaction	.95	.82–1.11	.88*	.79–.98	.90	.77–1.07	.88*	.78–.98
Awareness of disaster and mental health	Risk assessment of disaster	.82*	.69–.97	1.20**	1.05–1.36				
	Risk assessment of mental health problems	.86*	.75–.99	1.11***	1.11–1.36				
	External attribution for mental illness	.79**	.69–.91	1.20***	1.09–1.33	.87	.75–1.01	1.15**	1.04–1.28
	Time to for recover from post-disaster mental health problems	.87**	.80–.95	1.11***	1.05–1.18	.90*	.82–.98	1.07*	1.01–1.14
Attitude to disaster mental health	Importance of national support for post-disaster mental health problems	.60*	.48–.74	1.43***	1.17–1.76	.63***	.50–.79	1.25*	1.02–1.54
	Self- stigma of seeking mental health service	1.22**	1.06–1.41	.72***	.64–.80	1.11	.94–1.31	.83**	.72–.94
	public stigma of seeking mental health service	1.25**	1.08–1.44	.71***	.64–.80	1.19*	1.00–1.42	.81**	.71–.93
-2 LL		5395.65				5110.10			
Nagelkerke R^2		.10				.09			
Model chi-square		289.88***				285.55***			

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ OR: odds ratio, CI: confidence interval.

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health service were significantly more likely to belong to the group that preferred taxation as compared to the group without preference <Table 3>.

Ⅴ. Discussion

This study investigated the public perception of which financial resources were preferable for post-disaster mental health services and confirmed the variables that influence preferences for certain financial resources, such as OOP payment and taxation. The present study yielded the following major findings.

First, chi-square tests revealed that groups which preferred OOP payment, taxation, or had no preference differed significantly in all variables. Second, multi-nominal logistic regression analyses revealed that women and older individuals were more likely to belong to the group that preferred OOP payment than the group without preference, and individuals with higher educational background and lower financial satisfaction were more likely to be in the group that preferred taxation than the group without preference. No demographic variable predicted both the group that preferred OOP payment and the group that preferred taxation.

Even after controlling for socio-demographic variables, participants who perceived that less time would be required for mental recovery, perceived that national support for post-disaster mental health problems was less important, and had higher public stigma related to seeking mental health services were more likely to prefer OOP payment than have no preference. Moreover, participants who had higher external attribution for mental health problems, perceived that a longer length of time would be required for mental recovery, believed that national support for post-disaster mental health problems was more important, and had lower self- and public stigma for seeking mental health service were more likely to prefer taxation than have no without preference.

Participants' preference for taxation or OOP payment was determined by whether they perceived a long or short time to be required for victims' mental recovery, whether they perceived national support to be important, and whether they believed that others would view consultation or psychiatric treatment for a disaster experience as negative. In fact, only the public stigma of seeking mental health service, not the self-stigma variable, significantly predicted both OOP payment and taxation. This implies that prediction of others' negative gaze rather than internalization of negative views of mental health service exerted a more significant influence on preference for certain financial resources.

Negative perspective of seeking mental health service arises from stigma of those that use such service. This is because there is a social understanding that individual that use psychotherapy and consultation is an incompetent person who is unable to resolve their own problems (Jang, *et. al.*, 2009; Jung, 2010; Karasz, 2005; Lee & Park, 2016); consequently, they are viewed in a negative light by society. Therefore, when individuals have high public stigma of seeking mental health services, they are more likely to prefer to manage their feelings and emotions privately rather than seeking external support, such as consultation or psychotherapy, for mental health difficulties (Leong & Lau, 2001). The public stigma of seeking mental health service is greater in Asian cultures since these cultures value hiding psychological difficulties (Yi & Tidwell, 2005). Considering these previous research findings, the public stigma of seeking mental health service makes individuals perceive psychological difficulties as problems to be hidden and solved privately, possibly increasing their preference for OOP payment as a financial resource for mental health service. However, this

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reasoning should be further verified through research on the mechanism through which public stigma influences preferences for financial resources.

The present study has several strengths. First, since the preference for taxation assumes that individuals believe that post-disaster mental health services are a matter of public health, our study offers an assessment on the social consensus of this opinion as well as the legitimacy of post-disaster mental health services. Confirming attitudes toward financial resources of certain welfare services helps to confirm the legitimacy or future directions of those services (Brooks & Manza, 2006). Moreover, it also predicts whether it will be easy to find financial and human resources in the future. The preference for public resources, such as taxation, is thus an indicator of the social acceptance of a service. Consequently, our finding that more people preferred taxation (47.5%) to OOP payment (13.9%) or having no preference (38.7%) demonstrates that post-disaster mental health service has considerable public legitimacy as a welfare service.

Second, this study confirmed psychosocial factors, in addition to demographic factors, that significantly influence preference for financial resources. Therefore, it provides information on how to diverse societies can be persuaded regarding financial resources for post-disaster mental health services. Most previous studies on financial resources for welfare investigated the influence of demographic factors, such as sex, age, and income, and individuals' attitudes toward financial resources (Seo, 2014; Ryu & Choi, 2009). However, since it is difficult to change demographic factors, examining the various psychosocial factors that influence the preference for financial resources was necessary to establish strategies that can increase agreement with the use of financial resources for these purposes. Moreover, considering that costs for welfare services are mostly dependent on taxation, it is difficult to increase the finances and service provision without sufficient agreement and support from taxpayers (Brooks & Manza, 2006).

Key psychosocial factors that determined individuals' preference for OOP payment or taxation included the time to recover from post-disaster mental health problems, perceived importance of national support for mental recovery, and the public stigma of seeking mental health service. This means that reinforcing the perception that disaster victims require a long time to recover mentally and reducing the stigma associated with mental disorders and the use of mental health services are necessary measures which can maintain preferences for taxation. Improving the social perception of post-disaster mental health services should precede other means of national psychological support for disaster victims.

Despite these contributions, this study also had some limitations. First, most variables were measured with one item. In general, 3–4 questions are often used for psychological concepts to minimize measurement errors (Crawford, 1975). However, we limited the number of items because we surveyed 3,000 individuals. Second, the present study could not provide information on the mechanisms through which the studied factors influence preferences. Therefore, we suggest that future studies establish study models of significant predictor variables and confirm their significance in order to better explain the mechanism of preference for certain financial resources. Third, in this study, only a single factor like financial preference was used as a dependent variable, however, it is necessary to construct an analytical model using multidimensional variables that consider factors such as residence, perception of inequality and collectivism as a dependent variable. Fourth, in this study, 86.6% of the participants responded "agree" to the question assessing their perceived need of national mental health support,

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indicating the necessity for societal consensus on mental health support for disaster victims. However, the relative preference for taxation was 47.5%, which was much lower than the proportion of participants with a perceived need for national mental health support. In other words, agreement with the public nature of post-disaster mental support service may not relate to agreement with the use of public financial resources. Future studies should consider the characteristics of groups that may believe that national support is necessary for disaster mental health service but may not agree with using public financial resources to achieve this

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References

Bhojani, U., B. S. Thriveni, R. Devadasan, C. M. Munegowda, N. Devadasan, P. Kolsteren, and B. Criel. 2012. Out-of-pocket Healthcare Payments on Chronic Conditions Impoverish Urban Poor in Bangalore, India. *BMC Public Health*. 12(1): 990.

Brooks, C. and J. Manza. 2006. Why Do Welfare States Persist? *Journal of Politics*. 68(4): 816-827.

Clement, S., O. Schauman, T. Graham, and F. Maggioni. 2015. What is the Impact of Mental Health-related Stigma on Help-seeking? A Systematic Review of Quantitative and Qualitative Studies. *Psychological Medicine*. 45(1): 11-27.

Corrigan, P. W. 2004. How Stigma Interferes with Mentlal Health Care. *American Psychology*. 59(7): 614-625.

Crawford, C. B. 1975. Determining the Number of Interpretable Factors. *Psychological Bulletin*. 82(2): 226-237.

Dixon, A., D. McDaid, M. Knapp, and C. Curran. 2006. Financing Mental Health Services in Low-and Middle-income Countries. *Health Policy Planning*. 21(3): 171-182.

Jang, Y., D. A. Chiriboga, and S. Okazaki. 2009. Attitudes toward Mental Health Services: Age-group Differences in Korean American Adults. *Aging & Mental Health*. 13(1): 127-134.

Jung, Y. J. 2010. Study on the Factor Analysis of Service Utilizing Behavior in the Practice Field of Education. *Journal of Korean Social Child Welfare*. 31: 7-36.

Jung, Y. J. and S. G. Kim. 2009. Factors Affecting Stigma of Education & Welfare in Practice. *Journal of Korean Social Child Welfare*. 29: 97-123.

Karasz, A. 2005. Cultural Differences in Conceptual Models of Depression. *Social Science & Medicine*. 60(7): 1625-1635.

Knaul, F. M., A. Bhadelia, R. Atun, and J. Frenk. 2015. Achieving Effective Universal Health Coverage and Diagonal Approaches to Care for Chronic Illnesses. *Health Affairs*. 34(9): 1514-1522.

Kukmin Ilbo. 2016. 9. 21. http://news.kmib.co.kr/article/view.asp?arcid=0010943221&code=61121911&cp=nv

Kyunghyang Shinmun. 2014. 5. 6. http://news.khan.co.kr/kh_news/khan_art_view.html?artid=201405062203445&code=940202

Latalova, K., D. Kamaradova, and J. Prasko. 2014. Perspectives in Perceived Stigma and Self-stigma in Adult Male Patients with Depression. *Neuropsychiatric Disease and Treatment*. 10(default): 1399-1405.

Lee, H. W. and S. N. Park. 2016. Determinants of Attitudes toward Welfare Expansion: Beyond Self-interest. *OUGHTOPIA: Journal of Social Paradigm Studies*. 31(1): 267-298.

Leong, F. and A. Lau. 2001. Barriers to Providing Effective Mental Health Services to Asian Americans. *Mental Health Services Research*. 3(4): 201-214.

Lipsmeyer, C. S. and T. Nordstrom. 2003. East Versus West: Comparing Political Attitudes and Welfare Preferences Across European Societies. *Journal of European Public Policy*. 10(3): 39-364.

Nutt, P. and R. Backoff. 1993. Public Management Research Association. *Journal of Public Administration Research and Theory*. 3(4): 209-231.

Ryu, J. S. 2004. The Characteristics and Determinants of Welfare

www.kci.go.kr

Attitudes. *Korean Journal of Social Welfare*. 56(4): 79-101.

Ryu, M. H. and Y. Choi. 2009. Class, Self-interest, and the Attitude toward the Social Welfare Policies. *Korean Political Science Review*. 13(1): 191-210.

Saxena, S., P. Sharan, and B. Saraceno. 2003. Budget and Financing of Mental Health Service: Baseline Information on 89 Countries from WHO's Project Atlas. *Journal of Mental Health Policy Economy*. 6(3): 135-143.

Seo, N. K. 2014. A Study on Public Attitudes to Financing Scheme in the Health Care Sector. *Health and Social Sciences*. 37(1): 121-142.

Seoul Economic Daily. 2013. 5. 21. http://www.sedaily.com/NewsView/1HSO0GOBH6

Shin, J. 2002. Help-seeking Behaviors by Korean Immigrants for Depression. *Issues in Mental Health Nursing*. 23(5): 461-476.

Shirazi, R. and A. Biel. 2005. Internal-External Causal Attributions and Perceived Government Responsibility for Need Provision: A 14-culture Study. *Journal of Cross-cultural Psychology*. 36(1): 96-116.

Sihvo, T. and H. Uusitalo. 1995. Attitudes towards the Welfare State Have Several Dimensions. *International Journal of Social Welfare*. 4(4): 215-223.

Svallfors, S. 2004. Class, Attitudes and the Welfare State: Sweden in Comparative Perspective. *Social Policy Administration*. 38(2): 119-138.

Vogel, D. L., N. G. Wade, and A. H. Hackler. 2008. Emotional Expression and the Decision to Seek Therapy: the Mediating Roles of the Anticipated Benefits and Risks. *Journal of Social Clinical Psychology*. 27(3): 254-279.

Yang, K. Y. 2013. The Change of Social Service Provision System and Publicity. *Korean Public Management Review*. 27(1): 89-114.

Yi, S. and R. Tidwell. 2005. Adult Korean Americans: Their Attitudes toward Seeking Professional Counseling Services. *Community Mental Health Journal*. 41(5): 571-580.

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일반인들의 재난심리지원 서비스 재원에 대한 태도에 영향을 미치는 변인

국문초록 본 연구는 재난심리지원 서비스의 재원에 대한 국민들의 인식을 살펴보고, 개인부담과 조세 등 특정 재원 선호에 영향을 미치는 변인을 확인하는 것을 목표로 한다. 이를 위해 연령별, 성별, 지역별 할당을 적용하여 수집된 2928명의 데이터를 분석하였다. 우선 '특정재원 선호 없음', '개인부담 선호', '조세 선호'로 집단 구분 후 교차분석과 다중 로지스틱회귀분석을 실시하여 각 집단에서 연구 변인들의 예측력을 확인하였다. 그 결과, '특정재원 선호 없음'에 비해 '개인부담 선호'집단을 유의하게 예측하는 변인은 성별, 연령, 심리회복에 필요한 기간 인식, 국가의 심리지원 중요성 인식, 서비스 이용에 대한 사회적 낙인이었다. 반면 '특정재원 선호 없음'에 비해 '조세 선호'집단을 유의하게 예측하는 변인은 학력, 경제적 만족도, 정신건강 문제에 대한 외적귀인, 심리회복에 필요한 기간인식, 국가의 심리지원 중요성 인식, 서비스 이용에 대한 자기 및 사회적 낙인이었다.

주제어 : 재난심리지원, 정신건강, 재원, 개인부담, 조세

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