The Stigma of Mental Illness and the Way of Destigmatization: The Effects of Interactivity and Self-Construal

Doori Song, Hyun-Ji Lim, and Yoo Jin Chung

Abstract—Some believe that stigma is the worst side effect of the people who have mental illness. Mental illness researchers have focused on the influence of mass media on the stigmatization of the people with mental illness. However, no studies have investigated the effects of the interactive media, such as blogs, on the stigmatization of mentally ill people, even though the media have a significant influence on people in all areas of life. The purpose of this study is to investigate the use of interactivity in destigmatization of the mentally ill and the moderating effect of self-construal (independent versus interdependent self-construal) on the relation between interactivity and destigmatization. The findings suggested that people in the human-human interaction condition had less social distance toward people with mental illness. Additionally, participants with higher independence showed more favorable affection and less social distance toward mentally ill people. Finally, direct contact with mentally ill people increased a person's positive affect toward people with mental illness. The current study should provide insights for mental health practitioners by suggesting how they can use interactive media to approach the public that stigmatizes the mentally ill.

Keywords—Mental health, destigmatization, interactivity, self-construal

I. INTRODUCTION

THE stigma associated with mental illness imposes considerable costs on the individuals who have this disease as well as on the society. People with mental illness usually struggle with two problems. First, they struggle with the problems that can be attributed to the disease itself, as the symptoms often make it difficult for individuals to work and live independently [1]. [2]. Second, the misconceptions that society has about mental illness makes it harder for people to manage their lives, even though they can manage mental illness well enough to work with others [2]-[4]. Stereotypes can rob people labeled mentally ill important life opportunities that are essential for achieving life goals, such as competitive

Doori Song is a PhD student of the College of Journalism and Communications at the University of Florida, Gainesville, FL 32611 USA (phone: 352-575-0038; fax: 352-392-1794; e-mail: songdoori@ufl.edu).

Hyun-Ji Lim is a PhD candidate of the College of Journalism and Communications at the University of Florida, Gainesville, FL 32611 USA (phone: 352-846-5703; fax: 352-392-1794; e-mail: hjlim@jou.ufl.edu)

Yoo Jin Chung is a Master student of the advertising department at the University of Florida, Gainesville, FL 32611 USA (phone: 703-508-0532; fax: 352-392-1794; e-mail: airylin@gmail.com)

employment and independent living in a safe and comfortable home. A substantial body of evidence suggests that the way in which mentally ill people are represented in the mass media causes the stigma toward people with mental illness [3]-[7]. Specifically, cultivation theory, social cognition theory, and framing theory have been used to address the media effects on stigmatization of people with mental illness [8]-[12]. However, studies have mainly focused on the influence of traditional media, such as television, newspaper, and movies, and not on the influence of interactive media, such as the Internet, which has a considerable influence on people's lives. This study tries to fill the gap by investigating the role of interactivity on the stigmatization of people with mental illness.

Specifically, this study compares the effects of two types of interactivity on destimatization and suggests that the effects of interactivity will differ depending on the individuals' self-construal (independent versus interdependent self-construal). Additionally, it explores the influence of direct contact with mentally ill people on their stigmatization.

II. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

A. Stigma toward People with Mental Illness

Cultivation theory suggests that constant, one-sided, and biased media coverage that presents negative and inaccurate pictures of people with mental illness promotes negative stereotypes [7], [8], [13], [14]. Numerous studies have found that people with mental illness are stereotypically viewed as dangerous, unpredictable, and childlike [10], [15], [16]. Specifically, researchers classified stigma into four components to identify (1) a group of individuals that are labeled and distinguished from others, (2) dominant cultural beliefs (i.e., negative stereotypes), (3) the labeled individuals placed into distinct categories that form "ingroups" and "outgroups", and (4) the labeled individuals experience with discrimination that leads to negative consequences [15]-[17]. This stigmatization has severe consequences for individuals who suffer from mental illness as well as for the community as a whole. For instance, rationales are constructed to reject and exclude people who have been labeled with undesirable characteristics, i.e., a job application can be rejected or an apartment will not be leased to a person with a mental illness

[4], [15]. Researchers have suggested that more effort is needed to reduce the stigmatization of people with mental illness, such as educating the public and correcting negative attitude [16], [18]. This study is especially interested in the effects of contact levels between community members and people with mental illness, and examines the contact levels from high to low, direct contact, human-human interaction, and human-message interaction, accordingly.

B. Direct Contact with Mentally Ill

The contact hypothesis argues that a lack of contact, or mediated contact, between groups lacking equal status, common goals, institutional supports, or common interests may lead to increased prejudice and stereotypes between groups [19]. Distorted media portrayals of minority groups might therefore cause majority groups to develop stereotypes towards minorities if there is a lack of interpersonal contact between the two groups. Farnall and Smith [14] found that adults who viewed positive media portrayals of people with disabilities tended to develop positive stereotypes towards them. Additionally, Lopez [19] noted that learning experiences might be the result of direct and intimate contact with social referents, including acquaintances and school or work associates who have been identified as mentally ill. Thus, this study expects that direct contact with mental illness people will have positive effects on destigmatization.

H1a-c: People who have direct contact with mentally ill people are likely to be (a) positively affected by and (b) less socially distant toward mentally ill people compared to people who do not have direct contact. (c) People with direct contact are also likely to perceive mentally ill people as less dangerous.

C. Interactivity: Human-Human versus Human-Message Interaction

Interactivity can be defined according to whether it is feature based or perception based [20]-[25]. Feature-based interactivity is defined in terms of the features of a medium or the capabilities of creating interactive content or messages [26], [27]. Researchers who define media interactivity based on its features assume that both the communicator and the audience desire a reciprocal, two-way communication [28], [29]. Additionally, interpersonal communication is the standard of interactivity, and the interactivity of mediated communication is evaluated by how closely it resembles face-to-face communication [20], [30]. Therefore, it is inferred that interpersonal communication is the ultimate goal of communicators who want to utilize interactivity. Therefore, they need to provide features promoting interactivity, such as live chatting or commentary functions. However, several opposing researchers point out that this definition and underlying assumptions ignore the characteristics of interactive media, which allow asynchronous communication [20], [23], [31]. In other words, looking at interactivity from the angle of interpersonal communication ignores the ability of a medium to break the boundaries of traditional interpersonal communication [32]. Those researchers focus on

perception-based interactivity, defined as a psychological state experienced by a site-visitor during the interaction process [22], [25]. For instance, McMillan and Hwang [23] pointed out that interactivity should not be measured by analyzing processes or counting features of media; instead, it should be considered in terms of how users perceive the interactivity. In interactive media setting, we presume that perceived interactivity differs according to the media users' goals or individual traits. For example, a consumer who seeks the opinion of others about a product perceives a conversation among consumers as more critical compared to mere product information, whereas a consumer who seeks only product information may consider the conversation features in the media as cumbersome.

Related to the perceived interactivity, researchers specified different dimensions of interactivity [33]-[35]. For instance, Ha and James [20] proposed five dimensions of interactivity, such as playfulness, choice, connectedness, information collection, and reciprocal communication. Other researchers have suggested communication direction, user control, and time [23]. However, since this study is investigating how people perceive and use interactivity rather than interactivity itself, the study uses two broad categories of interactivity that serve as umbrellas for different definitions and dimensions of previous interactivity studies: (1) human-human interaction and (2) human-message interaction [28], [32], [33], [36].

Human-human interaction is most often discussed from an interpersonal communication perspective [32]. Unlike traditional mass media, which offer usually a one-way message flow, human-human interaction involves two-way flow of messages between senders and receivers [20], [33], [35]. For instance, consumers can provide feedback to marketers in response to marketing messages [35]. Additionally, consumers can engage in a mutual discourse, such as an online discussion, by providing comments, feedback, and personal information to the marketers or other consumers [36]-[38]. McMillan [35] noted that a virtual community has the highest interactivity and that users' participation on traditional Web sites has the lowest.

On the other hand, the main concern of human-message interaction is media users' interaction with messages [30], [38]. Users of interactive media not only select the messages they encounter but also exert control over the messages by searching, editing, and modifying them during interaction [32], [33], [35]. For instance, Jensen [26] defined interactivity as one of the potential abilities of the Internet, which allows its users to exert their influence on the form and content of any message at any time. In the context of interactive advertising, Ko [39] noted that interactivity allows consumers to participate actively in the persuasion process by controlling the advertisement's amount of information and order of presentation at any time according to consumers' needs and preferences. In the same vein, human-message interaction involves users clicking the hyperlinks to search for further information, using the keyword search function, and using multimedia features [32], [33], [36]. That is, the message recipient has a high level of control over the content while the

communication is mainly one-way, from sender to recipient [35]. Therefore, human-human interactions are more similar to interpersonal rather than human-message interaction [39] and have advantages of exchanging information using human voice.

H2a-c: People who engage in human-human interaction are likely to be (a) more positively affected by and (b) less socially distant toward people with mental illness compared to people who are not. (c) People who are exposed to human-human interaction are also likely to perceive mentally ill people as less dangerous.

D. Self-construal: Independent and Interdependent Self

Self-construal refers to an individual's perception of self in relation to others. Specifically, people view themselves either as an independent entity or as an entity dependent on others (i.e., independent- versus interdependent self) [40], [41]. Thus, self-construal has been used in many studies as a validated concept to investigate the cultural differences among individuals [40]-[42]. Specifically, Singelis [43] noted that independent self-construal characterizes Western countries and interdependent self-construal characterizes Eastern countries. Even though this concept has been used primarily for comparing cultural differences, several studies have used the self-construals in different ways. Some scholars adopted independent and interdependent self-construals in consumer behavior and advertising studies [42], [43], [44]. Ng and Houston [42] asserted that self-construal affects the accessibility of brand associations in consumers' mind, influence brand attitude and brand evaluation, and affect the relation of self-view and perceived brand images.

1. Independent Self-construal

Markus and Kitayama [41] noted that the essential aspect of this independent view involves an autonomous and independent person. Individuals who have this self-view show some individual desire, preference, attribute, and ability [41]. Singelis [43] defined independent self-construal as a bounded, unitary, stable self that is separate from a social context and noted that independent individuals have internal abilities, thoughts, and feelings, want to be unique, and want to express their own self. Individuals with high independent self-view will value their own abilities, attributes, characteristics, feelings, or actions [43]. Accordingly, individuals who have independent self-construal are not likely to be affected by others' opinions, including stereotypes about people with mental illness.

2. Interdependent Self-construal

Markus and Kitayama [41] noted that individuals who have interdependent self-construal are likely to find a way to fit in with relevant others and become part of the public. They depend on the nature of others' opinions [41]. These individuals value external, public features, want to read others' minds and make harmonious relationships, and in contrast to the independent self, they depend on others [43]. Markus and Kitayama [41] noted that individuals who have a dominant interdependent self-view build their identity based on their relationship with others. Other researchers have argued that their self is inseparable from contextual information [45]. Thus, their attitude formation toward the people with mental illness largely depends on others. Based on the characteristics of the self-construal, we expect that people with independent self-construal are more vulnerable to stereotyped information compared to people with interdependent self-construal because they are less likely to resist the majority.

H3a-c: People who are more independent are likely to be (a) more positively affected by and (b) less socially distant toward people with mental illness compared to people who are less independent. (c) People who are more independent are also likely to perceive mentally ill people as less dangerous.

H4a-c: People who are more interdependent are likely to be (a) less positively affected by and (b) more socially distant toward people with mental illness compared to people who are less interdependent. (c) People who are more interdependent are also likely to perceive mentally ill people as more dangerous.

E. Interdependence and Interaction Types: Interaction Effects between the Interactivity and Self-Construals

The uses and gratification theory says that people perceive and use interactivity according to the situation [46], [47], and they selectively engage the specific medium that satisfies their needs [20], [23]. That is, perceived interactivity does not necessary correlate positively with the interactive features in media. Fortin and Dholakia [48] demonstrated that people had the same level of perceived interactivity even though the featured-based interactivity varies. In the same vein, Sohn and his colleagues [29] found that the effects of interactive features on the Web depend on people's expected interactivity (e.g., the expected interactivity depends on individuals' involvement in the situation). Thus, people might perceive interactivity differently even though they are exposed to the same features. Consequently, the effects of interactivity will largely depend on the receivers of the message. This study assumes that even though media provide high levels of interactivity (i.e., human-human interaction), the perceived interactivity may largely dependent on the situations that people encounter or on their needs and personal traits. That is, interdependent people are likely to be influenced by others' opinions whereas independent people are more likely to be influenced by context; therefore, correct information about mental illness will be different depending on their self-construal.

H5a-c: With human-human interaction, people who are more interdependent are likely to be (a) more positively affected by and (b) less socially distant toward people with mental illness compared to people who are not as interdependent. (c) People who are more interdependent are also likely to perceive mentally ill people as less dangerous. However, with human-message interaction, the effects will not be changed.

III. METHOD

A 2 (self-construal: independence and interdependence) x 2 (types of interaction: human-human versus human-message)

between-subjects experimental design was used to test the proposed hypotheses.

A. Participants

Overall, 232 undergraduate students at a large university in the southeastern United States participated in this experiment in return for extra credit. The average age of the participants was 20 years old, ranging from 18 to 25. Of the participants, 65.5% were female and 34.5% were male. The participants were further categorized by race—68.5% were Caucasian, 13.8% were Hispanic, African Americans were 7.3%, 13% were Asians.

B. Procedure

A link to the online experiment was sent to the participants. After completing a consent form, they were randomly assigned to one of two experimental conditions (human-human or human-message). Participants then answered a questionnaire to measure their self-construal, and then visited either a fictional experimental Web site or an organizational blog. The content on both sites was identical, but the organizational blog included the blog visitors' comments to the postings and the bloggers' responses to public comments (human-human interaction), while the Web site did not (human-message interaction). After reading the content on the Web site or the blog, participants were given questions that would measure their feelings toward people with mental illness, or their level of stigmatization.

C. Stimulus Materials

The two types of interactivity were investigated by directing participants to a fictional Web site of the National Institute of Mental Health (NIMH) for the human-message interaction condition and to an NIMH blog for the human-human interaction condition. An organizational blog was used because blogs are recognized as a tool that enables dialogue and feedback among users [49]-[51]. Additionally, organizational blogs are used as forums in which organization representatives in an official or semi-official capacity can communicate with the public [52], [53]. Particularly, organizational blogs are appropriate for this study not just because of their human-human interaction but also because their authorship helps control for source bias.

Contexts in the two conditions were created using information about schizophrenia on the NIMH official Web site. The contexts were identical, but human-human interaction condition included conversations between the public and the organizational bloggers. Fictitious names were used in all stories and postings to minimize preexisting attitudes.

The self-construal measurement was adopted from Singelis [43]. The scale measures the degree to which a person expresses preference for individualism and separation from others or connectedness and relations with others. This measurement has twelve items for interdependent (Cronbach's alpha = .73 to .74) and independent dimensions (Cronbach's alpha = .69 to .70), each measured on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree).

Direct contact involved having been mentally ill oneself or having a family member or close friend who was mentally ill [14]. However, indirect contact involved learning about mental illness from school or through the mass media [2], [4]. Thus, participants were asked about their direct contact experience using five binominal items (e.g., Do you have any friends who work for pay or have you done volunteer work with people who had a mental illness?).

Fig. 1 Organizational Blog (H-H Interaction)

D. Dependent and Control Variables

The social distance scale, the dangerousness scale, and an affect scale were used to measure the degree of stigmatization of the participants in this study. These stigma-dependent measures were adopted from Penn et al. [16].

The social distance scale (SDS) measured the potential interactions with a hypothetical individual with mental illness using seven items measured on a 4-point Likert scale (0 = definitely unwilling to 3 = definitely willing) [15]. The participants were asked about their willingness to interact with "someone with schizophrenia." Penn et al. [16] regarded this measurement as a proxy measure of social avoidance. The SDS had a reliability of .86 in this study.

Borrowing from Link et al. [15], this study adopted eight items of the dangerous scale (DS) measured on a 7-point Likert scale (1= strongly agree to 7 = strongly disagree). The items measure the beliefs about whether people with mental illness are likely to be a danger to others. The DS had good internal reliability in the present study (Cronbach's alpha = .78).

The affect scale (AS) requires the subjects to rate their emotional reactions to people with mental illness. The scale comprises three opposite pairs of adjectives pertaining to emotions measured on a 7-point scale (e.g., "left me with a bad feeling—left me with a good feeling"). The items were adopted from Penn et al. [16]. The AS had excellent internal reliability in this study (Cronbach's alpha = .92).

Lastly, previous studies on mental illness indicated that gender influences the publics' attitude toward people with mental illness [6], [8], [14]. To control this influence, the participant's gender was included in the subsequent analysis as a covariate.
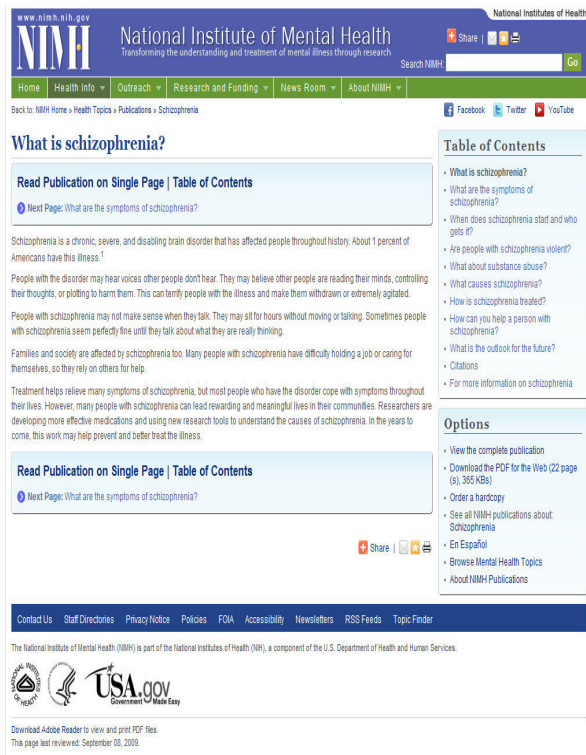

Fig. 2 Organization Website (H-M Interaction)

IV. RESULTS

Simple linear regressions and a multivariate analysis of covariance (MANCOVA) were conducted to test the hypotheses. The three dependent variables, affection, dangerousness, social distance, were included, and the participants' gender was also included as a covariate in MANCOVA. The regression analyses revealed a positive relationship between independence and affective reaction and a negative relationship with the perceived level of dangerousness. The results of MANCOVA showed that the effect of a person having direct contact with people who are mentally ill was marginally significant, Wilk's λ = .97, F(3, 227) = 2.26, p < .08, but failed to show that the interactivity effects were significant. A two-way interaction effect of degree of independence and interactivity types was not statistically significant on combined dependent variables.

Participants' gender was a significant covariate, Wilk's λ = .44, F(3, 225) = 2.74, p < .044.

Hypothesis1a predicted that direct contact with people who were mentally ill would have an effect on the AS. As expected, participants who had direct contact with mentally ill people (M = 4.39, SD = 1.28) were more likely to experience a favorable affect towards people with mental illness compared to those who did not have direct contact (M = 3.92, SD = 1.14), F(1, 230) = 6.20, P < .01. Thus, the first hypothesis was supported. Unexpectedly, an analysis of covariance (ANCOVA) indicated no significant effect of direct contact on perceived dangerousness and social distance toward the mentally ill people. Thus, H1b and H1c were not supported.

Hypothesis 2a, 2b, and 2c posited a strong effect of human-human interaction on affection, perceived dangerousness, and social distance toward the people with mental illness. As expected, participants who engaged in human-human interaction (M = 2.48, SD = .52) had less social distance. Thus, H2a was supported. However, H2b and H2c were not supported.

TABLE I
ANCOVA FOR THE EFFECT OF DIRECT CONTACT

| Dependent Variables | Direct contact | | | | | | |
| | Yes | | No | | | | |
	M	SD	M	SD	F	df	P
AS	4.39	1.28	3.92	1.14	6.15	1	.014*
DS	3.88	.75	3.72	.70	1.68	1	.196
SDS	2.53	.51	2.58	.57	.352	1	.554

Note. a. AF = Affect Scale; DS = Dangerousness Scale; SDS = Social Distance Scale
b. AS and DS are measured on a 7-point scale, with 4 indicating neutrality of evaluation. SDS are based on a 4-point scale
c. * p < .05

Hypotheses 3a, 3b, and 3c predicted the effects of independence on participants' affective reaction, perceived dangerousness, and social distance toward people with mental illness. The regression of independent variables on dependent variables produced significant results except for the case of perceived dangerousness. Thus, H3a and H3c were supported. Additionally, H4a-c expected the relationships between interdependence and stigma-dependent variables. Unexpectedly, the results indicated that the interdependence related positively with a favorable affective reaction. Therefore, H4a-c were not supported.

TABLE II
ANCOVA FOR THE EFFECT OF INTERACTION TYPES

| Types of Interaction | | |
H-H		H-M

Dependent Variables	M	SD	M	SD	F	df	P
AS	4.32	1.24	4.25	1.29	.21	1	.647
DS	3.85	.73	3.85	.76	.006	1	.939
SDS	2.48	.52	2.60	.53	3.06	1	.082

Note. a. AF = Affect Scale; DS = Dangerousness Scale; SDS = Social Distance Scale
b. AS and DS are measured on a 7-point scale, with 4 indicating neutrality of evaluation. SDS are based on a 4-point scale

To conduct univariate analysis, median split was used for independence (median = 5.0) and interdependence (median = 5.0). However, no difference was found between the participants who engaged in human-human interaction and those exposed to the human-message condition. Thus, H5a-c were not supported.

TABLE III
INFLUENCE OF SELF-CONSTRUAL

	β	T	P
Independence			
AS	.276	2.98	.003**
DS	.140	2.56	.011**
SDS	-0.05	-1.28	.201
Interdependence			
AS	.178	1.84	.067
DS	.066	1.16	.249
SDS	.016	.398	.691

Note. a. AF = Affect Scale; DS = Dangerousness Scale; SDS = Social Distance Scale
b. AS and DS are measured on a 7-point scale, with 4 indicating neutrality of evaluation. SDS are based on a 4-point scale

V. CONCLUSION

This study investigated how human-human and human-message interaction play a role in reducing the stigmatization toward people with mental illness. The study also demonstrated that individual traits (i.e., self-construal) relate to destigmatization of people with mental illness. Specifically, the results showed that people in human-human interaction condition experienced less social distance to people with mental illness. Additionally, participants who had higher independence showed more favorable affection and less social distance toward mentally ill people. Finally, direct contact with mentally ill people increased a person's positive affect toward people with mental illness.

Theories, such as cultivation theory and social cognitive theory, have been used as useful frameworks for understanding the media as a socializing agent that may influence the construction and perpetuation of the stigma surrounding mental illness. Social cognitive theory also suggests that behaviors and information that are repeated and perceived as real, distinct, functional, and salient are more likely to be attended to and thus more likely to be learned [54],

[55]. Applying this theory to mental illness stigma, however, has limitations, especially in this so-called information era in which numerous information sources are readily available. An informal analysis of participants' media usages and information sources of mental illness revealed that participants spend significantly more time on the Internet (M = 6.65 hours per day, SD = 2.38) than watching television (M = 3.12, SD = 2.24). Additionally, 38% of participants (n = 89 out of 232) said they get most of their information about people with mental illness from the Internet and only 13% (n = 30 out of 232) obtain such information from the television. Considering that information technologies promote two-way communication and traditional media promote one-way communication, alternative theories of addressing the stigma surrounding mental illness interactively need to be considered.

This study also proposed that personal traits, such as self-construal, are likely to influence stigmatization. According to the results of this study, people with higher independence have more positive affection and less social distance toward mentally ill people. Therefore, two-way interactions, such as conversations, will be useful for destigmatizing interdependent people who are more likely to accept the social norms and get along with others [43]. Unexpectedly, however, this study failed to demonstrate the interaction effect between self-construal and interactive types. One reason might involve the median split method, which divides the participants into two groups based on the median. It is not an appropriate method since breaking the participants into two groups leads to the loss of 1/5 to 2/3 of the variance accounted for by the original variables [56]. Further studies should manipulate the participants' self-construal in laboratory setting or use cross-cultural samples (e.g., American versus Japanese).

This study confirmed that the effect of direct contact with mentally ill people on stigma-dependent variables. Previous studies on the influence of direct contact found that frequent personal contact led to positive stereotyping, as did positive evaluations of the first contact [5]. Additionally, drench hypothesis suggests that exposure to a dramatic program or narrative can generate a significant effect on an audience [57]. Whereas cultivation can extend the effects over a long period, the drench hypothesis is depicted as having an intense, immediate effect [14]. Drench hypothesis also suggests that particularly strong and memorable portrayals of minority characters may create more lasting impressions on viewers compared to cumulative exposure to portrayals, which are more frequent but less significant. Therefore, direct contact with mentally ill people portrays them in a way that supports destigmatization.

Stigma has a major effect on people with mental illness, interfering with various aspects of their lives, including employment, housing, and social life. This study shows how interactivity can influence the destigmatization of people with mental illness and how personal traits can influence the formation of stigmas surrounding mental illness. Further research should consider how the media environment could support the people with mental illness.

REFERENCES

[1] M. C. Angermeyer, and M. Herbert, "The Effect of Violent Attack by Schizophrenic Persons on The Attitude of the Public towards the Mentally Ill," *Social Science and Medicine*, vol. 43, no. 12, pp.1721-1728, 1996.

[2] C. M. Bahk, "Drench Effects of Media Portrayal of Fatal Virus Disease on Health Locus of Control Beliefs," *Health Communication*, vol. 13, no. 2, pp. 187-204, 2001.

[3] G. Domino, "Impact of the Film: One Flew over the Cuckoo's Nest on Attitudes towards Mental Illness," *Psychological Reports*, vol. 53, pp. 179-182, 1983.

[4] D. H. Granello, P. S. Pauley, and A. Carmichael, "Relationship of the Media to Attitudes toward People with Mental Illness," *Theory and Research*, vol. 38, pp. 98-109, 1999.

[5] P. W. Corrigan, A. Green, R. Lundin, M. A. Kubiak, and D. L. Penn, "Familiarity with and Social Distance from People Who Have Serious Mental Illness," *Psychiatric Services*, vol. 52, no. 7, pp. 953-958, 2001.

[6] D. L. Diefenbach, and M. D. West, "Television and Attitudes toward Mental Health Issues: Cultivation analysis and The Third-person Effect," *Journal of Community Psychology*, vol. 35, no. 2, pp. 181-195, 2007.

[7] D. H. Granello, and P. S. Pauley, "Television Viewing Habits and Their Relationship to Tolerance Toward People with Mental Illness," *Journal of Mental Health Counseling,* vol. 22, no. 2, pp. 162-175, 2000.

[8] M. C. Angermeyer, S. Dietrich, and M. Herbert, "Media Consumption and Desire for Social Distance towards People with Schizophrenia," *European Psychiatry*, vol. 20, 246-250, 2005.

[9] A. Bandura, "Social Learning Theory of Aggression," *Journal of Communication,* vol. 28, no. 3, pp. 12-29, 1978.

[10] S. Dietrich, D. Heider, H. Matschinger, and M. C. Angermeyer, "Influence of Newspaper Reporting on Adolescents' Attitudes Toward People with Mental Illness," Social Psychiatry Psychiaty Epidemiol, vol. 41, pp. 318-322, 2006.

[11] M. Morgan, and N. Signorielli, *Cultivation Analysis: New Directions in Media Effects Research*. Newbury, California, 1990. Ch. 1.

[12] R. Wood, and A. Bandura, "Social Cognitive Theory of Organizational Management," *The Academy of Management Review*, vol. 14, no. 3, pp. 361-384, 1989.

[13] J. Cutcliffe, and B. Hannigan, "Mass Media, 'Monsters' and Mental Health Clients: the Need for Increased Lobbying, *Journal of psychiatric and Mental Health Nursing*, vol. 8, pp. 315-321, 2001.

[14] O. Farnall, and K. A. Smith, "Reactions to People with Disabilities: Personal Contact versus Viewing of Specific Media Portrayals," *Journalism and Mass Communication Quarterly*, vol. 76, no. 4, pp. 659-672, 1999.

[15] B. G. Link, F. T. Cullen, J. Frank, and J. F. Wozniak, "The Social Rejection of Former Mental Patients: Understanding Why Labels Matter," *American Journal of Sociology*, vol. 92, pp. 1461-1500, 1987.

[16] D. L. Penn, C. Chamberlin, and K. T. Mueser, "The Effects of a Documentary Film about Schizophrenia on Psychiatric Stigma," *Schizophrenia Bulletin*, vol. 29, no. 2, pp. 383-391. 2003.

[17] W. J. Potter, and K. Riddle, "A Content Analysis of The Media Effects Literature," *Journalism and Mass Communication Quarterly*, vol. 84, no. 1, pp. 90-104, 2007.

[18] A. Mayer, and D. D. Barry, "Working with the Media to Destigmatize Mental Illness," *Hospital and Community Psychiatry*, vol. 43, no. 1, pp.77-78, 1992.

[19] L. R. Lopez, "Adolescents' Attitude toward Mental Illness and Perceived Sources of Their Attitude: An Examination of Pilot Data," *Archives of Psychiatric Nursing*, vol. 5, no. 5, pp. 271-280, 1991.

[20] L. Ha, and E. L. James, "Interactivity Reexamined: A Baseline Analysis of Early Business Web Sites," *Journal of Broadcasting and Electronic Media*, vol. 45, pp. 65-74, 2008.

[21] G. J. Johnson, G. C. Bruner, and A. Kumar, "Interactivity and Its Facets Revisited," *Journal of Advertising*, vol. 35, no. 4, pp. 35-52, 2006.

[22] S. Kiousis, "Interactivity: A Concept Explication," *New Media & Society,* vol. 4, no. 3, pp. 355-383, 2002.

[23] S. J. McMillan, and J. S. Hwang, "Measures of Perceived Interactivity: An Exploration of the Role of Direction of Communication, User Control, and Time in Shaping Perceptions of Interactivity," *Journal of Advertising*, vol. 31, no. 2, pp. 29-42, 2002.

[24] D. Sohn, and B. K. Lee, "Dimensions of Interactivity: Differential Effects of Social and Psychological Factors," *Journal of Computer Mediated Communication*, vol. 10, no. 3, 2005.

[25] G. Wu, "The Mediating Role of Perceived Interactivity in the Effect of Actual Interactivity on Attitude toward the Website," *Journal of Interactive Advertising*, vol. 5, no. 2, pp.29-39, 2005.

[26] J. F. Jensen, "Interactivity: Tracking a New Concept in Media and Communication Studies," *Nordicom Review*, vol. 19, pp. 185-204, 1998.

[27] J. B. Walther, "Interpersonal Effects in Computer-Mediated Interaction," *Communication Research*, vol. 19, no. 1, 52-90, 1992.

[28] B. L. Massey, and M. R. Levy, "Interactive Online Journalism at English Language Web Newspapers in Asia," *Journalism and Mass Communication Quarterly*, vol. 76, no. 1, pp. 138-151, 1999.

[29] D. Sohn, C. Ci, and B. K. Lee, " The Moderating Effects of Expectation on the Patterns of the Interactivity-Attitude Relationship," *Journal of Advertising*, vol. 36, no. 3, pp. 109-119, 2007.

[30] S. Rafaeli, and F. Sudweeks, "Networked Interactivity," *Journal of Computer Mediated Communication,* vol. 2, no. 4, 1997.

[31] G. Wu, "Perceived Interactivity and Attitude toward Website," in *Conf. Presented*, 1999 Annual Conference of American Academy of Advertising.

[32] Y. Liu, and L. J. Shrum, "What is Interactivity and Is It Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness," *Journal of Advertising*, vol. 31, no. 4, 2002.

[33] C. Cho, and J. D. Leckenby, "Interactivity as a Measure of Advertising Effectiveness: Antecedents and Consequences of Interactivity in Web Advertising," in *Conf. Presentation*, 1999 Annual Conference of American Academy of Advertising.

[34] E. J. Downes, and S. J. McMillan, "Defining Interactivity: A Qualitative Identification of Key Dimensions," *New Media & Society*, vol. 2, no. 2, pp. 157-179, 2000.

[35] S. J. McMillan, "Interactivity is in the Eye of the Beholder, Function, Perception, Involvement, and Attitude toward Web Sites," in *Conf. Presentation*, 2000 Annual Conference of American Academy of Advertising.

[36] H. Ko, C. Cho, and M. S. Roberts, "Internet Uses and Gratifications," *Journal of Adverting*, vol. 34, no. 2, pp. 57-70, 2005.

[37] D. W. Schumann, and E. Thorson, *Internet Advertising: Theory and Research*. New Jersey, NJ: Lawrence Erlbaum Associate, Inc., 2007.

[38] G. S. Day, "Organizing for Interactivity," *Journal of Interactive Marketing*, vol. 12, no. 1, pp. 47-53, 1998.

[39] H. Ko, "Internet Uses and Gratifications: A Structural Equation Model of Global Interactive Advertising," University of Florida, Gainesvill, FL, Unpublished.

[40] J. L. Aaker, and A. Y. Lee, ""I" Seek Pleasures and "We" Avoid Pains: The Role of Self-Regulatory Goals in Information Processing and Persuasion*," Journal of Consumer Research,* vol. 28, pp. 33-49, 2001.

[41] H. R. Markus, and S. Kitayama, "Culture and the Self: Implications for Cognition, Emotion, and Motivation," *Psychological Review*, vol. 98, no. 2, 1991.

[42] S. Ng, and J. H. Houston, "Exemplars or Beliefs? The Impacts of Self-View on the Nature and Relative influence of Brand Associations," *Journal of Consume Research*, vol. 32, pp. 519-529, 2006.

[43] T. M. Singelis, "Measurement of Independent and Interdependent Self-Construal," *Personality and Social Psychology Bulletin*, vol. 20, pp. 580-591, 1994.

[44] M. B. Brewer, and W. Gardner, ""We"? Levels of Collective Identity and Self Representations," *Journal of Personality and social Psychology*, vol. 71, no. 1, pp.83-93, 1996.

[45] A. T. Church, M. S. Katigbak, A. M. Del Prado, F. A. Ortiz, K. A. Mastor, Y. Harumi, J. Tanaka-Matsumi, J. D. J. Vagas-Flores, J. I. Reyes, F. A. White, L. G. Miramontes, J. A. S. Reyes, H. F. Cabrera, " Implicit Theories and Self-Perception of Traitedness Across Cultures: Toward Integration and Cultural and Trait Psychology Perpesctives," *Journal of Cross-Cultural Psychology*, vol. 37, pp. 694-716, 2006.

[46] E. Katz, "Mass Communication Research and the Study of Popular Culture: An Editorial Note on A Possible Future for this Journal," *Studies in Public Communication*, vol. 2, pp. 1-6, 1959.

[47] L. Leung, "User-generated Content on The Internet: An Examination of Gratifications, Civic, Engagement and Psychological Empowerment," *New Media & Society*, vol. 11, no. 8, pp. 1-21, 2009.

[48] D. R. Fortin, and R. R. Dholakia, "Interactivity and Vividness Effects on Social Presence and Involvement with a Web-based Advertisement," *Journal of Business Research*, vol. 58, pp. 387-396, 2005.

[49] C. L. Hsu, and J. C. Lin, "Acceptance of Blog Usage: The Roles of Technology Acceptance, Social Influence and Knowledge Sharing Motivation," *Information & Management*, vol. 45, pp. 65-74. 2008.

[50] R. Scoble, and S. Israel, *Naked Conversations*. John Wiley & Sons, Inc., 2006.

[51] S-U Yang, and J. S. Lim, "The Effects of Blog-Mediated Public Relations (BMPR) on Relational Trust," *Journal of Public Relations Research,* vol. 21, no. 3, pp. 341-359, 2009.

[52] P. Dwyer, "Building Trust with Corporate Blogs," in *Conf. Proc. 2007 ICWSM*.

[53] T. Kelleher and B. M. Miller, "Organizational Blogs and the Human Voice: Relational Strategies and Relational Outcomes," *Journal of Computer Mediated Communication*, vol. 11, pp. 395-414, 2006.

[54] A. Bandura, "Social Learning Theory of Aggression," *Journal of Communication*, vol. 28, no. 3, pp. 21-41, 1999.

[55] A. Bandura, *Media Effects*. Mahwah, NJ, 2002. Ch. 6.

[56] J. Cohen, and P. Cohen, *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., 1983.

[57] B. S. Greenberg, *Television as a Social Issue.* Thousand Oaks, CA: Sage Publications, Inc. pp. 390, 1988.