
The Influence of Television on Willingness to Seek Therapy

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Television portrayals of psychologists may be contributing to an unfavorable perception of mental health services. The present study ($N = 369$) used structural equation modeling to examine the relationship between exposure to television programs, perceptions of therapy (i.e., perceived stigma, anticipated risks and benefits, and attitudes towards therapy), and intentions to seek therapy. The results demonstrated that (a) the relationship between television exposure and attitudes was fully mediated by stigma and anticipated benefits, and (b) the relationship between television exposure and intentions to seek therapy was fully mediated by attitudes, stigma, and anticipated benefits. Furthermore, 54% of the variance in attitudes and 47% of the variance in intentions was accounted for by the variables in the model. © 2008 Wiley Periodicals, Inc. *J Clin Psychol.* 64: 276–295, 2008.

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The images presented on television can have a significant influence over a person's social construction of reality (Potter, 1993; Potter & Chang, 1990). One aspect of this influence is described by the cultivation hypothesis (Gerbner, 1969). It asserts that exposure to recurrent patterns of images present on television shapes a viewer's perceptions of reality towards the portrayed issue or group (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). *Cultivation effects*, therefore, refer to expectations and attitudes that have been shaped by repeated exposure to images and messages from television. Supporting the cultivation hypothesis, researchers have found cultivation effects regarding a number of attitudes including endorsement of traditional sex-role attitudes (Morgan, 1987), attitudes about parenthood and marriage (Segrin & Nabi, 2002; Signorielli & Morgan, 2001), and attitudes towards environmentally friendly behaviors (Shanahan, Morgan, & Stenbjerre, 1997).

One important consequence of these cultivation effects is that expectations and attitudes that have been shaped through exposure to television may influence

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a person's intentions (positively or negatively) to engage in a behavior. Consistent with theories of behavioral motivation (see Ajzen & Fishbein's [1980] theory of reasoned action) one of the primary determinants of a person's intention to engage in a behavior is one's attitude towards the behavior. Attitudes, in turn, are based on an evaluation of the expectations the individual has about performing the behavior. Similarly, cultivation theorists hypothesize that exposure to television influences a person's general expectations ("first-order" effects) and specific attitudes ("second-order" effects; Gerbner, 1969). Thus, cultivation effects may influence intentions, indirectly, through their effect on expectations and then attitudes to engage in a behavior.

Based on theoretical assertions such as these, some writers have suggested that images of health service workers on television and other media outlets can influence whether a person decides to seek medical or mental health services (Morgan, 2006). For example, researchers have shown that viewing medical professionals on television influences attitudes towards physicians. Viewing positive depictions of physicians' on a prime time fictional series was associated with positive overall perceptions of doctors (Pfau, Mullen, & Garrow, 1995); viewing negative depictions was associated with negative overall perceptions of doctors (Chory-Assad & Tamborini, 2001). However, although researchers have examined the relationship between television viewing and perceptions of certain health attitudes, they have not empirically examined the relationship of television viewing and expectations and attitudes towards seeking mental health services. They also have not taken the next step and examined the role of these expectations and attitudes in predicting intention to engage in the behavior of seeking mental health services. Therefore, the goal of this research is to examine the relation between television exposure and intention to seek therapy. In addition, to better understand how television may be linked with intentions to seek mental health services, we will examine a model based on cultivation theory and the theory of reasoned action. This model explores how expectations about therapy (i.e., expected reactions of others or the stigma associated with seeking help and anticipated risks and benefits of talking to a therapist) and attitudes towards therapy will mediate the relationship between television exposure and intention to seek therapy for psychological and interpersonal concerns.

Influence of Television

Media outlets such as television are one of the public's most important sources of information about mental illness (Borinstein, 1992) and psychotherapy (Jorm, 2000; Jorm et al., 1997). In 1998, the National Health Council's survey found that people receive 40% of their health-care-related information from television. On the one hand, there may be some positive effects of this as there is evidence that television can be used positively to promote accurate health information. For example, mass media campaigns using television have been shown to successfully promote understanding and awareness for numerous major health issues, such as AIDS, cancer, and sexually transmitted diseases (Hornik, 1997; Snyder & Hamilton, 2003). On the other hand, there is also evidence that much of the information portrayed in the media and on television is inaccurate or exaggerated (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Wolff et al., 1996). Entertainment television programming, in particular, has been found to portray largely unrealistic, sensationalized, and exaggerated images of characters (Gerbner et al., 2002) and the presentation of those

experiencing a mental illness is no exception. For example, Granello and Pauley (2000) found that television and other electronic media portrayed the mentally ill unrealistically and unfavorably. Even more disconcerting was the finding that exposure to these unrealistic images was correlated with a decrease in tolerance towards the mentally ill. Thus, negative television portrayals can lead to increased stigmatization and discrimination of those experiencing mental illness (Wahl, 1999). As a result, Corrigan (1998, 2004) asserted that the negative portrayals of the mentally ill could reduce the likelihood of someone seeking help because of the greater expectation by the individual that others will stigmatize them (i.e., perceive them negatively). In fact, increased concerns about stigmatization have been linked with decreased intentions to seek therapy (Vogel, Wade, & Hackler, 2007). In other words, negative television portrayals may lead to the increased expectations (possibly true expectations) of the likelihood of being stigmatized for seeking help and thus impede actual intentions to seek help (Byrne, 1997; Corrigan & Penn, 1999; Crisp et al., 2000; Socall & Holtgraves, 1992; Wahl & Lefkowitz, 1989). Thus, the negative images presented on television towards those who seek therapy may be a potential mediator between television exposure and intentions to seek psychological services.

Analyses of television, print, and film representations also reveal that therapists are largely portrayed as engaging in unethical and sexually inappropriate behavior and being incompetent (Domino, 1983; Eber & O'Brien, 1982; Schneider, 1987; Signorielli, 1989). These images may cultivate inaccurate expectations about therapists, as well as what the therapy experience should be like. These expectations could ultimately lead to decreased usage of mental health services. Recently, researchers (Vogel & Wester, 2003) have made a distinction between two types of therapy expectations that may be influenced by television depictions: the anticipated risks associated with disclosing information to a therapist and the anticipated benefits associated with disclosing information to a therapist. Anticipated risks have been defined as the perception of the potential dangers of opening up to a therapist. Anticipated benefits have been defined as the perceived utility of opening up to a therapist. In the context of therapy, for example, a potential client who perceives psychologists as "omniscient" on television might decide to see a therapist assuming that the psychologist will undoubtedly solve all their problems. When they enter therapy and realize that problems often do not go away immediately, they may feel let down by the psychologist and possibly the field as a whole. These expectations may then result in a lack of trust, satisfaction, and ultimately the success of the therapy process. Alternatively, a negative television portrayal could preclude an individual from seeking services altogether. The potential negative exposure to television portrayals can lead the individual to perceive therapy as unhelpful or risky. The negative expectations of what would happen if one were to disclose information to a therapist may then predispose the recipient to reject it (Johannsen, 1969).

These cultivated expectations may play a significant role on intentions to seek therapy through their effect on viewers' attitudes toward seeking therapy services. As noted above, cultivation theorists make a distinction between first-order effects (expectations) and second-order effects (Gerbner, 1969). Therefore, television exposure should significantly predict individuals' intentions to seek professional mental health services through expectations about the stigma of seeking help and the anticipated risk and benefits of disclosing information to a therapist (first-order effects) and then attitudes toward seeking help (second-order effects). This mediation model is also consistent with theories of behavioral motivation (Ajzen & Fishbein,

1980) and with recent help-seeking research (Shaffer, Vogel, & Wei, 2006), that intentions to seek help are determined by attitudes towards the therapy process and attitudes are determined by expectations about therapy. Thus, the expected degree of stigma (e.g., "If I seek help others will think I am crazy") and anticipated outcomes (e.g., "Talking about my problems with a therapist won't help") should be directly related to one's attitudes, which, in turn, is related to one's intentions to seek help (Vogel, Wester, Wei, & Boysen, 2005).

Several studies have found direct relations that support the above assertions. For example, Cooper, Corrigan, and Watson (2003) found that those who endorse stigmas of the mentally ill were less likely to seek psychological help. Researchers have also found that perceptions of therapy stigma negatively predict attitudes towards seeking therapy (Deane & Todd, 1996; Komiya, Good, & Sherrod, 2000), as well as intentions to seek therapy (Deane & Chamberlain, 1994; Rochlen, Mohr, & Hargrove, 1999; Vogel, Wade, & Haake, 2006). Similarly, both anticipated risks and benefits of disclosing information to a counselor have also been connected to help-seeking. Vogel and colleagues (2005) found that anticipated benefits positively predicted help-seeking, in general, whereas anticipated risks negatively predicted help-seeking for those who had experienced a distressing event in their life. Similarly, both anticipated risks and anticipated benefits have been shown to be unique predictors of attitudes towards therapy and anticipated benefits has been shown to be a unique predictor of intentions to seek psychological services (Vogel et al., 2005). Thus, it seems that the perceived stigma and anticipated outcomes of seeking therapy may play an important role in forming people's help-seeking attitudes and subsequent decisions to seek therapy.

Current Study

The practical problem for mental health care is that individuals may be making decisions about whether to seek counseling based on the information they are receiving from fictional, television portrayals of therapists and psychotherapy. As such, the mental health field must consider the consequences of such fictional portrayals (Corrigan, 2004). Despite television being one of the public's most important sources of information about mental illness (Borinstein, 1992), no published empirical study has investigated cultivation effects of television exposure on intentions to seek therapy. The present study addresses this omission by measuring the association between exposure to television shows and viewers' attitudes and intentions to seek therapy. Specifically, the present study uses structural equation modeling (SEM) to examine the relations between television exposure and individuals' intentions to seek therapy for interpersonal and psychological concerns. We hypothesized that television exposure will significantly predict individuals' intentions to seek professional mental health services through perceptions of the stigma of seeking help and the anticipated risk and benefits of disclosing information to a therapist (first-order effects) and then attitudes toward seeking help (second-order effects; see Figure 1). In addition, we also hypothesized that television exposure will significantly predict individuals' intentions to seek professional mental health services through the anticipated benefits. This hypothesis was based on research showing that attitudes fully mediate the effects of stigma and anticipated risks on intentions, but only partially mediate the effects of anticipated benefits on intentions (see Vogel et al., 2005). Finally, because depression is one of

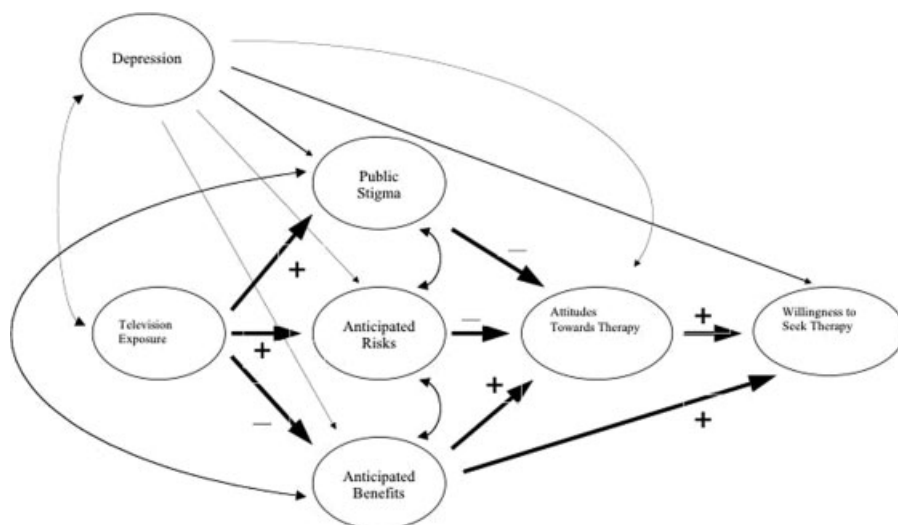


Figure 1. Hypothesized mediated model.

the main reasons to decide to seek professional help, we controlled for depression in the model (see Figure 1).

Method

Participants

Participants were 369 college students from a Midwestern university (47% women and 53% men). In terms of year in school, 59% of the participants were first-year students, 26% were second-year students, 9% were third-year students, and 6% were in school for 4 years or more. In terms of ethnicity/race, 91% of participants were White/Caucasian, 2% were Black or African American, 2% were Hispanic-Latino, 1% were Asian American, 1% were international, and 2% were multiracial/other, which is representative of the region and the university.

Measures

Stigma. Stigma was measured with the 5-item Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al., 2000). The SSRPH was designed to assess perceptions of the stigma associated with seeking professional help. It contains five questions rated from 1 (*strongly disagree*) to 4 (*strongly agree*). The items are summed so that higher scores reflect greater perceptions of stigma. A sample item is "Seeing a psychologist for emotional or interpersonal problems carries social stigma." The internal consistency for the measure was originally found to be .73. The internal consistency of the scores obtained in the current sample was .79. The SSRPH has been found to correlate with the attitude towards therapy (Komiya et al., 2000).

Anticipated risks and benefits. The Disclosure Expectations Scale (DES; Vogel & Wester, 2003) was used to assess anticipated risks and anticipated benefits of talking to a therapist about a psychological problem. The eight items on the DES are rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*very*). The scale is divided into two 4-item subscales: anticipated risks and anticipated benefits. A sample item for

anticipated risks is “How worried about what the other person is thinking would you be if you disclosed negative emotions to a counselor?” A sample item for anticipated benefits is “If you were dealing with an emotional problem, how beneficial for yourself would it be to self-disclose personal information about the problem to a counselor?” Responses for each subscale are totaled with higher scores representing greater anticipated risks and benefits. The internal consistency for the scales was previously found to be .74 for anticipated risks and .83 for anticipated benefits (Vogel & Wester, 2003). The internal consistency of the scores obtained in the current sample was .82 for anticipated risks and .87 for anticipated benefits. Anticipated risks have been shown to correlate negatively with the tendency to self-disclose distressing information and intentions to seek therapy and conversely, anticipated benefits have demonstrated a positive correlation with the tendency to self-disclose distressing information and intentions to seek therapy (Vogel et al., 2005).

Attitudes towards therapy. Attitudes toward therapy were measured with the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Farina, 1995). This is a 10-item revision of the original 29-item measure (Fischer & Turner, 1970). An example item is “If I believed I was having a mental breakdown, my first inclination would be to get professional attention.” Items are rated from 1 (*disagree*) to 4 (*agree*). Five items are reverse scored with higher scores reflecting positive attitudes. The revised scale is correlated ($r = .87$) with the original suggesting that it is tapping into a similar construct (Fischer & Farina, 1995). The internal consistency ($\alpha = .84$) and one-month test-retest ($r = .80$) reliabilities for the revised scale have been reported for college students. The internal consistency of the scores obtained in the current sample was .83. The revised scale is correlated with previous use of professional help for a problem. The revised ATSPPHS has also been found to differ for college students with serious emotional/personal problems who sought therapy and those with comparable problems who did not. Among college students, the scale also has a positive association with the intentions to seek therapy, and correlates negatively with the tendency to self-conceal (Vogel et al., 2005).

Intentions to seek therapy for psychological and interpersonal concerns. Intentions to seek therapy for psychological and interpersonal concerns were measured with the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975). The ISCI is a 17-item measure that asks respondents to rate how willing from 1 (*very unlikely*) to 4 (*very likely*) they would be to seek therapy if they were experiencing the issue listed. Sample issues are relationship difficulties, depression, choosing a major, and excessive alcohol use. Scale responses are summed with higher scores indicating a greater likelihood of seeking therapy. Factor analysis of the ISCI supports the existence of three subscales within the measure, labeled *psychological and interpersonal concerns* (10 items, $\alpha = .90$), *academic concerns* (4 items, $\alpha = .71$), and *drug use concerns* (2 items, $\alpha = .86$), with correlations among the subscales ranging from .18 to .50 (Cepeda-Benito & Short, 1998). Only the psychological and interpersonal concerns subscale (covering topics such as relationship and family conflicts, loneliness, depression, and inferiority feelings) was used in the present study to reduce participant burden. This subscale also (a) has the strongest relationships with stigma and attitudes in previous studies (Vogel & Wester, 2003), and (b) it reflects college students increased concerns about loneliness, depression, and other interpersonal issues (Benton, Robertson, Tseng, Newton, & Benton, 2003). The internal consistency of the scores obtained in the current sample was .90

for the psychological and interpersonal concerns subscale. Among college students, the ISCI has been found to detect variation in intentions to seek therapy based on counselor attractiveness (Cash et al., 1975) and to mirror attitudes towards seeking help (Kelly & Achter, 1995).

Depression. Depression was measured with the 20-item Center for Epidemiological Studies-Depression scale (CES-D; Radloff, 1977). The CES-D measures the frequency of depressive symptoms on a 4-point scale that ranges from 0 (*rarely or none of the time*) to 3 (*most or all of the time*). Higher scores indicate greater frequency of feelings of depression. A sample item from the depression scale is, "I felt that I had nothing to look forward to." Radloff reported the internal consistency to be .85. The internal consistency of the scores obtained in the current sample was .73. Validity has been supported through positive correlations with scores on the Beck Depression Inventory (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995).

Television exposure. To measure television exposure, respondents were asked how often they watch comedy shows and how often they watch drama shows on a frequency scale. The frequency scale included *every day, almost every day, about two to three times a week, about once a week, a couple times a month, about once a month, I almost never watch this type of show, and I never watch this show*. Comedies and dramas were selected because they are two types of shows that often portray psychologists and/or psychotherapy (e.g., *Frasier, Law and Order SVU*). In the past, cultivation was measured by total TV time (see Gerbner et al., 2002), but research has shown that measuring specific show-type exposure is a better predictor of cultivation effects than overall television exposure because people are selective in their viewing habits (Potter & Chang, 1990). As such, if these show type variables are valid, they should be significantly, but only moderately, correlated with total weekly amount of TV viewing, and this is what was found (.24 for comedy and .41 for drama).

Procedures

Before data collection began, human subjects approval was obtained from the Iowa State University's Institutional Review Board. Participation was voluntary; students could choose to participate by attending one of six scheduled sessions announced in their psychology classes. These announcements stated that they would be filling out questionnaires about their attitudes and perceptions. Participants received one extra credit point in their class for their participation. After completing an informed consent, participants received a packet containing the above measures and some demographic questions. After finishing the questionnaire, participants were debriefed on the purpose of the study. All samples were treated in accordance with the Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002).

Results

Descriptive Statistics

Table 1 lists the zero-order correlations, means, and standard deviations for the overall scale scores. As we planned to use the maximum likelihood method in LISREL 8.54 to examine our hypothesized structural model (see Figure 1), we used

Table 1
Means, Standard Deviations, and Zero-Order Correlations ($N = 369$)

	Mean	SD	2	3	4	5	6	7
1. Willingness	20.3	6.0	.55	-.18	-.07	.52	-.15	.19
2. Attitudes	24.3	5.7		-.35	-.25	.56	-.13	.04
3. Public stigma	10.4	3.2			-.21	-.21	.13	.14
4. Anticipated risks	12.4	3.6				-.10	.02	.09
5. Anticipated benefits	11.9	3.8					-.16	.06
6. Television exposure	10.1	2.5						.02
7. Depression	13.1	9.1						

Note. Willingness = Psychological and Interpersonal concerns subscale of the Intent to Seek Counseling Inventory; Attitudes = Attitudes Toward Seeking Professional Psychological Help Scale; Public Stigma = Social Stigma for Seeking Psychological Help Scale; Anticipated risks = the anticipated risks subscale of the Disclosure Expectations Scale; Anticipated benefits = the anticipated benefits subscale of the Disclosure Expectations Scale; Depression = the Center for Epidemiological Studies – Depression Scale. Absolute values of correlations greater than or equal to .13 were significant at $p < .05$; absolute values of correlations greater than or equal to .14 were significant at $p < .01$; absolute values of correlations greater than .17 were significant at $p < .001$.

the test developed by Mardia to test whether or not the data met the normality assumption underlying the maximum likelihood procedure (see Bollen, 1989). The multivariate normality test indicated that the data did not fit requirements for normality, $\chi^2(2, N = 369) = 225.42, p < .001$. Therefore, the Satorra–Bentler (2001) scaled chi-square statistic will be reported hereafter to adjust for the impact of nonnormality in the subsequent analyses. Furthermore, since statisticians have recommended reporting multiple goodness-of-fit indices, the following four indices, in addition to the scaled chi-square, will be used to assess a model's goodness-of-fit: the comparative fit index (CFI; $\geq .95$), the incremental fit index (IFI; $\geq .95$), the root mean square error of approximation (RMSEA; $\leq .06$), and the standardized root mean square residual (SRMR; $\leq .08$; see Hu & Bentler, 1999, and Martens, 2005).

Item Parcels

To help account for possible violations in multivariate normality that are often problematic when using individual items and to reduce the number of parameters that would result if one were to use individual items (and thereby improving model fit due to the more limited number and better distribution of the parameters), we followed the recommendation of Russell, Kahn, Spoth, and Altmaier (1998) and created observed indicators (parcels) for each of the latent variables. The parcels were created using separate exploratory factor analyses with the maximum likelihood method for each of the scales. Each scale's items were rank-ordered based on the magnitude of their factor loadings. Pairs of the highest- and lowest-ranking items were successively assigned to a parcel to equalize the average loadings of each parcel on its respective factor (see Table 2 for means, standard deviations, and correlations for the 17 parcels).

Measurement Model for Testing Mediated Effects

Following the recommendation of Anderson and Gerbing (1988) a confirmatory factor analysis was first used to test the measurement model to see if there was an

Table 2
Zero-Order Correlations Among the 17 Observed Variables (N = 369)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Public stigma1	.67	.21	.21	-.13	-.15	-.27	-.28	-.15	-.09	-.13	-.14	.16	.09	.14	.09	.13
2. Public stigma2		.14	.10	-.25	-.24	-.36	-.36	-.30	-.17	-.17	-.24	.16	.11	.13	.13	.11
3. Anticipated risks1			.67	-.18	-.13	-.23	-.22	-.25	-.12	-.12	-.13	-.05	-.01	.04	.01	.03
4. Anticipated risks2				-.03	.01	-.16	-.20	-.14	.03	.01	-.01	-.01	-.00	.15	.09	.12
5. Anticipated benefits1					.73	.46	.51	.49	.41	.35	.51	-.08	-.10	.01	.05	-.01
6. Anticipated benefits2						.43	.41	.45	.44	.42	.52	-.13	-.15	.08	.13	.06
7. Attitude1							.66	.61	.38	.33	.45	-.14	-.09	-.00	.01	-.02
8. Attitude2								.67	.42	.42	.52	-.17	-.15	.04	.06	.02
9. Attitude3									.48	.45	.55	.36	-.12	-.09	.04	.04
10. Willingness1										.78	.78	-.12	-.10	.20	.15	.12
11. Willingness2											.71	.33	-.20	-.17	.18	.16
12. Willingness3												-.17	-.13	.13	.16	.09
13. TV Comedy													.38	-.06	-.05	-.02
14. TV Drama														.01	-.02	-.01
15. Depression1															.73	.75
16. Depression2																.69
17. Depression3																

Note. Public stigma1, 2 = the two parcels created from the Social Stigma for Seeking Psychological Help Scale; Anticipated risks1, 2 = the two parcels created from the anticipated benefits subscale of the Disclosure Expectations Scale; Attitude1, 2, 3 = the three parcels created from the Attitudes toward Seeking Professional Psychological Help Scale; Willingness1, 2, 3 = the three parcels created from the psychological and interpersonal concerns subscale of the Intentions to Seek Counseling Inventory; TV Comedy = frequency of watching television comedy shows; TV Drama = frequency of watching television drama shows; Depression1, 2, 3 = the three parcels created from Center for Epidemiological Studies – Depression Scale. Absolute values of correlations greater than or equal to .10 were significant at $p < .05$; absolute values of correlations greater than or equal to .14 were significant at $p < .01$; absolute values of correlations greater than or equal to .18 were significant at $p < .001$.

Table 3
Factor Loadings for the Measurement Model ($N = 396$)

Measured variable	Unstandardized factor loading	SE	Z	Standardized factor loading
Public stigma				
Public stigma parcel 1	1.51	.12	12.78	.73*
Public stigma parcel 2	1.26	.09	14.64	.92*
Anticipated risks				
Anticipated risks parcel 1	1.67	.14	11.79	.87*
Anticipated risks parcel 2	1.54	.14	11.27	.76*
Anticipated benefits				
Anticipated benefits parcel 1	1.81	.10	18.55	.87*
Anticipated benefits parcel 2	1.66	.09	18.94	.83*
Attitude toward therapy				
Attitude parcel 1	1.87	.12	16.02	.77*
Attitude parcel 2	1.65	.09	18.90	.84*
Attitude parcel 3	1.69	.09	18.81	.80*
Willingness to seek therapy				
Intent parcel 1	2.28	.11	20.58	.90*
Intent parcel 2	1.61	.09	18.77	.84*
Intent parcel 3	1.86	.08	22.71	.87*
Television exposure				
Comedy exposure	1.56	.21	7.30	.74*
Drama exposure	.87	.16	5.42	.51*
Depression				
Depression parcel 1	3.31	.18	18.77	.90*
Depression parcel 2	2.66	.20	13.03	.82*
Depression parcel 3	2.60	.16	16.67	.84*

* $p < .001$.

Table 4
Correlations Among Latent Variables for the Measurement Model ($N = 369$)

Latent variable	1	2	3	4	5	6	7
1. Public stigma	—	.21**	-.28***	-.44***	-.22***	.23**	.16**
2. Anticipated risks		—	-.17*	-.33***	-.12	-.04	.10
3. Anticipated benefits			—	.66***	.58***	-.18*	.07
4. Attitudes towards therapy				—	.63***	-.25***	.05
5. Willingness to seek therapy					—	-.24**	.21***
6. Television exposure						—	-.08
7. Depression							—

* $p < .05$; ** $p < .01$; *** $p < .001$.

acceptable fit to the data. An initial test of the measurement model provided a good fit for the data: scaled χ^2 (98, $N = 369$) = 172.05, $p < .001$; CFI = .98; IFI = .98; RMSEA = .045 (90% confidence interval [CI] = .034; .056); SRMR = .039. Table 3 shows the unstandardized and standardized factor loadings, standard error, and Z statistic for each of the 17 observed variables on their latent variables. The measured variables' loadings on the latent variables were all statistically significant. The correlations among the latent variables can be seen in Table 4.

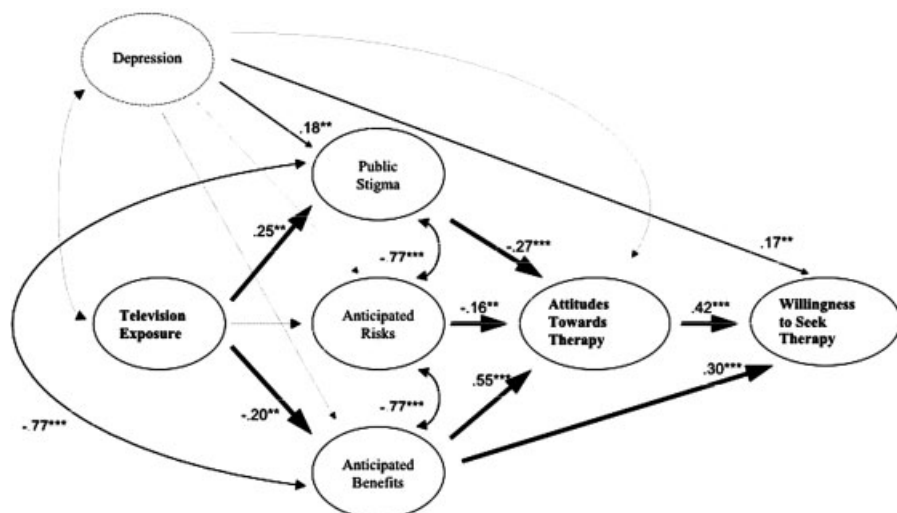


Figure 2. Final mediated model. Note. $N = 369$. The dashed lines indicate that the paths were not significant. $^{**}p < .01$ $^{***}p < .001$.

Structural Model for Testing Mediated Effects

Following the recommendation of Martens' (2005), we next tested our hypothesized model (see Figure 1) and compared its fit to an alternate model. The two nested models were compared using the Satorra–Bentler scale chi-square differences test. In the alternative model, we added the direct paths from television exposure to attitudes and from television exposure, public stigma, and anticipated risks of disclosing information to a therapist to intentions to seek therapy. The hypothesized model provided a good fit for the data: scaled $\chi^2(102, N = 369) = 177.24, p < .001$; CFI = .98; IFI = .98; RMSEA = .045 (90% confidence interval [CI] = .034; .056); SRMR = .044. The alternative model with the four additional paths also provided a good fit for the data: scaled $\chi^2(98, N = 369) = 172.05, p < .001$; CFI = .98; IFI = .98; RMSEA = .045 (90% confidence interval [CI] = .034; .056); SRMR = .039. However, a comparison of the models showed no statistically significant difference: scaled $\chi^2(4, N = 369) = 5.30, p = .26$. Therefore, the hypothesized model with fewer paths (see Figure 2) was chosen as the best model and used in the subsequent bootstrap procedure to confirm the hypothesized indirect effects.¹

Bootstrapping

The bootstrap procedure recommended by Shrout and Bolger (2002) was used to confirm the significant levels of indirect effect for the hypothesized model. Bootstrap

¹The invariance of path coefficients for structural paths in the fully mediated model was also examined by conducting SEM multiple group comparison analysis for the female ($N = 175$) and male ($N = 194$) groups. To compare the two models, we conducted a model in which the relations between perceived public stigma, anticipated risks, anticipated benefits, attitudes, and intentions were freely estimated and a model in which the relations between public stigma, self-stigma, attitudes, and intentions to seek counseling were set to be equal for women and men. We then used the corrected scaled chi-square difference test to determine whether these models were equivalent. When these two models were compared, however, there was no significant corrected scaled chi-square difference, $\delta\chi^2[314, N = 369] = 6.1, p = .97$. Thus, the model was invariant for women and men.

procedures offer an empirical means for determining statistical estimates (Efron & Tibshirani, 1993) and provide a better estimate of the standard errors of the indirect effects. To conduct the bootstrap, 10,000 bootstrap data samples were created by randomly sampling with replacement from the original data set ($N = 369$). Next, the hypothesized model was run with each of the 10,000 samples, resulting in 10,000 estimations of each path coefficient. The indirect effect of television exposure on intentions to seek therapy for psychological and interpersonal concerns through the stigma of seeking therapy, anticipated risks of disclosing information to a therapist, anticipated benefits of disclosing information to a therapist, and attitudes toward therapy mediators was calculated by multiplying the 10,000 pairs of path coefficients (a) from television exposure to stigma, anticipated risks, and anticipated benefits; (b) from stigma, anticipated risks, and anticipated benefits to attitudes toward therapy; and (c) from attitudes toward therapy to intentions to seek therapy. If the 95% CI for the estimate of indirect effects does not include zero, then the indirect effect is statistically significant at the .05 level (Shrout & Bolger, 2002).

Table 5 shows the estimates for the indirect effects. The bootstrap procedure confirmed the significant mediated pathways from (a) television exposure through stigma and help-seeking attitudes to intentions to seek therapy, (b) television exposure through anticipated benefits and help-seeking attitudes to intentions to seek therapy, and (c) television exposure through anticipated benefits to intentions to seek therapy. In addition, the bootstrap procedure confirmed the significant mediated pathways from (a) stigma through help-seeking attitudes to intentions to seek therapy, (b) anticipated risks through help-seeking attitudes to intentions to seek therapy, and (c) anticipated benefits through help-seeking attitudes to intentions to seek therapy. Altogether, the factors in the model explained 54% of the variance in attitudes toward therapy. In turn, these variables combined with attitudes explained 47% of the variance in intentions to seek therapy for psychological and interpersonal concerns.

Discussion

Based on the cultivation hypothesis (Gerbner, 1969; Gerbner et al., 2002), the present study explored the possibility that exposure to television shows may contribute to perceptions of stigma and negative expectations about psychological services that can lead to negative attitudes and lower intentions to seek such services. Findings from the present study support such a claim. Our results indicate that more frequent exposure to comedy and drama television significantly (a) predicts viewer attitudes towards therapy through the mediators of stigma of seeking therapy and anticipated benefits of disclosing information to a therapist, and (b) predicts intentions to seek therapy for interpersonal and psychological concerns through the mediators of stigma of seeking therapy, anticipated benefits of disclosing information to a therapist, and attitudes towards therapy. In other words, results reveal a positive correlation between viewers' television exposure and their perceptions of stigma, which then negatively predicted their attitudes towards seeking professional mental health services and ultimately less willingness to seek help. Similarly, results reveal a negative correlation between viewers' television exposure and their anticipated benefits of disclosing information to a therapist, which then decreased the viewers' intentions to seek help both directly through lowered anticipated benefits as well as indirectly through increased negative attitudes. As predicted by the cultivation hypothesis, viewers' social construction

Table 5
Bootstrap Analyses of the Magnitude and Statistical Significance of the Indirect Effect

Independent variable	Mediator variables	Dependent variable	β Standardized indirect effect	β Mean indirect effect ^a	SE of Mean ^a	95% CI effect ^a (Lower & upper)
Television exposure →	Public stigma → attitudes →	Willingness	$(.25) \times (-.27) \times (.42) = -.03$	-.04	.02	-.08, -.01
Television exposure →	Ant. Risks → attitudes →	Willingness	$(-.04) \times (-.16) \times (.42) = .003$.001	.01	-.01, .01
Television exposure →	Ant. Benefits → attitudes →	Willingness	$(-.20) \times (.55) \times (.42) = -.05$	-.07	.05	-.16, -.01
Television exposure →	Ant. Benefits →	Willingness	$(-.20) \times (.30) = -.06$	-.09	.06	-.21, -.01
Public stigma →	Attitudes →	Willingness	$(-.27) \times (.42) = -.11$	-.17	.05	-.25, -.09
Ant. risks →	Attitudes →	Willingness	$(-.16) \times (.42) = -.07$	-.09	.06	-.19, -.0001
Ant. benefits →	Attitudes →	Willingness	$(.55) \times (.42) = .23$.30	.06	.20, .41

^aThese values based on unstandardized path coefficients.

of reality was related to what they viewed on television. These findings are important given previous research that has shown that portrayals on television of psychologists and psychotherapy can be negative and that viewers are receiving mixed messages about psychologists (Philo, 1994).

According to the cultivation hypothesis, cultivation effects should result from television exposure. However, researchers have also recently suggested a modification to this assumption, arguing that better results would be achieved by targeting specific genres of programs known to provide certain types of portrayals (e.g., Potter & Chang, 1990). Our results, in which the specific genres of comedy and drama were tested, provide some support for this modified version of cultivation theory in that selective media exposure was predictive of perceptions of stigma, anticipated outcomes, attitudes toward therapy, and intentions to seek help. In other words, the influence of television on viewer perceptions of psychologists may be weighted differently depending on the genre. Essentially, a person's genre preferences and dominant viewing patterns may dictate the extent to which their beliefs are cultivated from television, as certain genres are more likely to send certain messages than are others. The implication for future cultivation research is that evidence for cultivation effects may depend on how television exposure is operationalized (see also Hawkins & Pingree, 1981; Potter, 1993; Potter & Chang, 1990; Segrin & Nabi, 2002). By measuring television exposure in a genre-specific manner, researchers may augment their ability to understand television's influence on social constructions of reality as it pertains to professions not portrayed uniformly.

The findings of this study are consistent with this modified view of the cultivation hypothesis. Shrum's (1995, 2001) heuristic processing model also offers an explanation for the observed cultivation effects that is consistent with this modified cultivation hypothesis. Whereas thoughtful, extensive searches of information from long-term memory may refute some of the more vivid, acute images depicted on television, Shrum asserts that individuals use heuristics (i.e., shortcuts) in making many decisions. One heuristic, the accessibility bias, is said to occur when information that more easily comes to mind is used disproportionately in making judgments (Shrum, 1995, 2001). Accessibility is the ease with which information is recalled from memory (Higgins & King, 1981), and is a function, in part, of the frequency and recentness with which the information is activated in one's mind, and of the vividness and distinctiveness of the information. Because heavy viewers are exposed to more relevant television images, the given information should be activated more frequently and recently in their minds than in those light television viewers, thereby increasing accessibility (Chory-Assad & Tamborini, 2001). Accessibility is also higher among heavy viewers because the activated information tends to be vivid and distinct, due to dramatic, fast-paced, and exciting formats presented on television (Shrum, 1995, 2001).

Implications

One positive implication of these results is that media campaigns might be used to change public opinion about therapy (Jorm, 2000). Researchers could examine the effects of interventions to reduce the negative effects and/or increase any positive effects of TV shows. Making better use of the television to educate the public about the services they offer could directly combat some of the inaccurate information portrayed on television that may increase people's concerns about seeking professional help (Jacobs, 1995). Consistent with this, several media campaigns in

different countries have been attempted (Jacobs, 1995; Paykel, Hart, & Priest, 1998; Wolff et al., 1999). Studies have shown that these campaigns do positively affect attitudes towards mental health services (Paykel et al., 1998), reduce anticipated concerns about seeking treatment (Wolff et al., 1999), and produce an increase in service use (Nelson & Barbaro, 1985). Building on these studies, our finding that greater frequency of exposure to certain genres (i.e., drama and comedy) was predictive of cultivation effects suggests that it might be helpful for mass media campaigns to target time slots during certain programs or channels that routinely air programs known to portray psychologists. In other words, using intentional positive portrayals or what is called *counter-advertising* techniques to combat negative portrayals in media. In terms of content, research has shown that using likeable, identifiable, and realistic spokespersons that evoke an emotional response from the viewers tends to improve overall message acceptance and attitude change (Atkin, 2001; Fishbein, Hall-Jamieson, Zimmer, von Haeften, & Nabi, 2002). In particular, our results suggest that it would be helpful for the spokespeople to convey messages that provide information about the role of therapists, function of therapy, and how to seek help. Using television to portray therapy accurately and using effective spokespersons should help minimize misperceptions, reduce the negative expectations, and improve attitudes associated with seeking professional help.

Guided by future research on effects of television, similar broad campaigns and more focused educational efforts might be able to address the concerns of individuals who avoid needed treatment for the fear of negative consequences. Others researchers have suggested broad approaches to guide the combating of the negative effects of television and other media outlets, such as protest, education, and contact (see Corrigan & Penn, 1999). *Protest* refers to the need for counselors to be active in voicing their concerns about the shows and movies portraying therapy and clients in inaccurate or misleading ways, which is harmful and needs to be stopped. In turn, positive portrayals can be suggested. To assist with these efforts the National Alliance for the Mentally Ill has developed "media watch kits" that can be used to monitor media outlets. *Education* refers to the need for counselors to disseminate accurate information about psychologists and therapy that combats inaccurate portrayals so people can make informed decisions. The current results, in particular, suggest that to increase professional help-seeking behaviors psychologists may need to let the public know about the benefits of seeking therapy, as in the current study, the benefits of seeking help had both direct and indirect effects on participants' intentions to seek therapy. These education efforts can take many forms including books, videos, audiotapes, posters, advertisements, and public service announcements. Finally, *contact* with people who have experienced psychological concerns and therapy can lead to positive attitudes. Indirect contact with people who have entered therapy can also be elicited through reading stories about individuals who have sought treatment and through public service announcements. Allowing for the provision of positive role models may, therefore, also be important.

Limitations

This was the first study to examine a model of the relation between television exposure and intentions to seek therapy; however, some limitations should be noted. First, we operationalized television exposure by frequency of viewing of specific genres known to portray psychologists. This is an improvement over traditional methods just measuring total screen time (e.g., Potter & Chang, 1990); however,

more specific ways of measuring television exposure (i.e., assessing specific shows) have been suggested to further reduce error and to give better estimates. Our measure was also limited by the scale used, with *every day* being the highest frequency for viewing types of shows. It is certainly likely that this reduced our variance, as some participants may watch several times a day. However, this likely only limited our ability to find effects, as limited variance likely limited the strength of the effects we could find. Similarly, although we found significant effects, future studies might examine the role of specific *shows* known to portray psychologists or psychotherapy, and to look at the effects of positive versus negative portrayals. Additionally, future studies might want to explore other types of programming such as the exploding number of reality-based programs. For example, “Breaking Bonaduce” is a reality show on VH1 that has a psychologist Dr. Garry B. Corgiat in a professional role. VH1 is known to represent pop-culture and target teenagers, who may be particularly impressionable given a potential lack of psychology awareness. We expect that measuring television exposure in these ways would likely strengthen the current finding as those that watch specific targeted shows are more likely to be influenced by them. In addition, the fact that we found an effect for general comedy and drama shows suggests the overall importance of specific genres on perceptions of therapy. It should also be noted that although we found significant effects, the amount of total variance explained is small. This is not surprising, given that many additional factors must influence attitudes and intentions besides television exposure. Nonetheless, this study demonstrates that the effect of certain genres of television *is* one of the factors, which is particularly important because it is one over which the field can exert some control.

The present study was also limited in that despite using SEM analysis, the results do not allow any causal inferences between variables, although the results are consistent with causal theories. Therefore, future studies would add to the literature by conducting experimental studies aimed at testing specific genres or specific shows to see the extent to which they influence individual’s perceptions of therapy or attitudes towards seeking psychological services. The present study also only looked at current television viewing habits at one point in time. Differences in cultivation effects may be found at different points and over time. Researchers should consider longitudinal television effects that may influence perceptions of therapy. Future research would benefit by experimentally testing the attitudinal effects of exposure to a single show episode, as well as repeated exposure to episodes over longer periods. Similarly, television, although it is one important media outlet, is not the only source of information. News stories and motion pictures, for example, could be influencing viewers’ perceptions. News programming, for example, often airs 30-second clips or sound bites of “expert” psychologist/psychiatrist analysis. If an expert exhibits negative or inaccurate messages, the effects of these messages need to be examined. In addition, movies are longer and often more vivid and memorable than a single television show, thus according to the heuristic process model’s explanation (Shrum, 1991, 1995) more accessible in memories, and therefore might promote stronger cultivation effects.

Finally, the external generalizability of findings of the study is limited by the sample. The survey was taken from a sample of students from a Midwestern university that was less diverse than other parts of the country. As such, differences in cultivation effects may be found in different regions, individuals of different ages, and from different ethnic/racial groups. This research, therefore, needs to be replicated with noncollege students and diverse populations. However, given the

wealth of research on cultivation effects, it does seem probable that television exposure will predict cultivation effects for other individuals.

Conclusion

There has not been much of a focus by researchers on portrayals of psychologists or psychotherapy on television. However, television show creators are increasingly using psychologists and other mental health professionals as characters on television. With this trend comes a need for researchers to test the effects those character portrayals have on viewers. In particular, the present findings highlight the necessity for research aimed at measuring television's direct and indirect effects on individuals in decisions to seek mental health services. The field must consider what role portrayals of psychologists and psychotherapy may have on the public's perception of psychologists and psychotherapy. If the portrayals are inaccurate or misleading, they could have direct and indirect implications on people's mental health. Psychological concerns and everyday stressors require timely attention before they run the risk of occupational or social impairment and television seems to be at least one of the factors that plays a role in the perceptions of therapy and likelihood of people seeking professional help.

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