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Conceptual Model of Research to Reduce Stigma Related to Mental Disorders in Adolescents

Melissa D. Pinto-Foltz and

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, Ohio, USA

M. Cynthia Logsdon, DNS, ARNP, FAAN

University of Louisville, Nursing, Louisville, United States

Abstract

Purpose: To explicate an initial conceptual model that is amenable to testing and guiding anti-stigma interventions with adolescents.

Design/Sources Used: Multidisciplinary research and theoretical articles were reviewed. .

Conclusions: The conceptual model may guide anti-stigma interventions, and undergo testing and refinement in the future to reflect scientific advances in stigma reduction among adolescents. Use of a conceptual model enhances empirical evaluation of anti-stigma interventions yielding a casual explanation for the intervention effects and enhances clinical applicability of interventions across settings.

Keywords

adolescence (health); community/public health; mental disorders; theory

Background

One in every five adolescents has a mental disorder and most adolescents do not receive needed mental health treatment (U.S. Surgeon General, 1999; Samargia, Saewyc, & Elliot, 2006). Consequently, many cases of mental disorders remain unresolved during adolescence and continue or reoccur in adulthood (Insel & Fenton, 2005; Kessler, et al., 2005). Recent evidence (Schinke, Fange, & Cole, 2008; Aarons, et al., 2008) amplifies the profound impact of untreated mental disorders during adolescence on the overall health of young adults. Specifically, untreated mental disorders that occur in adolescence are associated with chronic health problems in young adulthood, like respiratory problems, increased rates of infectious diseases, and difficulty maintaining a healthy weight. (Schinke, et al. 2008; Aarons, et al., 2008). Keenan-Miller, Hammen, and Brennan (2007) provide further evidence for the adverse long-term health consequences of untreated mental disorders during adolescence; they found when individuals have untreated mental disorders during adolescence, these same individuals experience poor overall health, poor physical health, increased work impairment, and high health care utilization as young adults.

One important barrier to mental health treatment for adolescents is the stigma. Stigma is a “collection of negative attitudes, beliefs, thoughts, and behaviors that influence the individual, or the general public, to fear, reject, avoid, being prejudiced, and discriminate” against those

Declaration of Interest

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with mental disorders (Gary, 2005, p. 980). Nearly a decade has elapsed since the U.S. Surgeon's General Report on Mental Health (1999) identified stigma related to mental disorders as a barrier to mental health treatment. Recent findings of qualitative and quantitative studies with adolescents suggest that adolescents stigmatize mental disorders (Chandra & Minkovitz, 2006, 2007; Corrigan, Lurie, et al., 2005; Logsdon, Usui, Pinto-Foltz, & Rakestraw, 2009; Pinto-Foltz, Logsdon, & Usui, 2009; Pinto-Foltz, Hines-Martin, & Logsdon, 2009; Draucker, 2005; Rew, 2007; Hagan, Shaw, & Duncan, 2008). Stigma related to mental disorders manifests only in and through social interactions with others (Pescosolido & Martin, 2007), and adolescents may be particularly susceptible to the consequences of stigma related to mental disorders because of their stage of development. According to adolescent development literature (Erickson, 1980), personal identity formation is the central task of adolescence. During adolescence, individuals experience identity vs. identity diffusion crisis and attempt to separate themselves from their parents (Crosnoe & McNeely, 2008). They also begin to observe their peers and reflect these observations inward (Rew, 2005). Thus, peer relationships become increasingly important and peer opinions become internalized into the adolescent's self-concept insofar as having a profound positive or negative impact on health behaviors (Crosnoe & McNeely). Negative attitudes about mental disorders from peers are problematic; these negative attitudes impact the adolescent's decision to discuss mental health symptoms and ultimately impede mental health treatment seeking (Hagan, Shaw, & Duncan, 2008; Corrigan, Watson, Byrne, & Davis, 2005; Draucker, 2005; Marcell & Halpern-Felsher, 2007).

When attitude and behavior change among adolescents are goals, peers are an integral component of health intervention research (Crosnoe & McNeely, 2008). Thus, opposed to a targeted approach (administration of interventions to only those with a mental disorder), interventions to reduce stigma related to mental disorders among adolescents should be universal (administration of interventions to all adolescents). Reducing stigma among all adolescents will reform a culture, within adolescent social networks, that embraces discussion of mental disorders and is inclusive of adolescents with mental disorders. This reform of the peer culture may ultimately increase mental health treatment seeking behaviors.

Stigma, attitudes, and beliefs about mental disorders develop during childhood and adolescence (Wahl, Hanrahan, Lasher, & Swaye, 2007). Thus, interventions early in growth and development aimed at improving stigma, attitudes, and beliefs about mental disorders will likely contribute to improvements in the immediate and long-term health consequences of adolescents in two ways. First, early intervention will likely increase mental health treatment seeking for adolescents who require, but have not received mental health treatment. Second, early intervention will likely increase compliance with mental health treatment for adolescents who currently receive mental health treatment. In short, adolescence is an opportune time to encourage positive attitudes, reduce stigma related to mental disorders, and reduce the illness burden across the life span.

Stigma related to mental disorders is under-studied in adolescents; empirical studies of anti-stigma interventions among adolescents are rare (Link 2004; Pinto-Foltz & Logsdon, 2009). Moreover, a conceptual model that provides a "blue print" for reduction of stigma related to mental disorders among adolescents is needed, but remains "uncharted territory." In 2003, President Bush's New Freedom Commission on Mental Health Care urged scientists, community stakeholders, and government agencies to act quickly at micro and macro levels of government to reduce stigma related to mental disorders, and expand and improve school-based mental health programs, particularly programs that improve stigma and mental health literacy. Recent recommendations by the National Academy of Sciences Committee on Adolescent Health (2008) suggest that future research should focus on establishing the effectiveness of mental health interventions, and for mental health interventions to be accessible, acceptable, and tailored to adolescents. Today, Corrigan & Wassel (2008) continue

a call for anti-stigma interventions, but emphasize that anti-stigma interventions should be evidence-based and situated in the community for rapid dissemination and the broadest impact (Leckman & Leventhal, 2008).

Several anti-stigma community-based programs for adolescents exist, but rigorous evaluation of these programs is needed to build the evidence-base (Schachter, et al., 2008). For example, a national, grassroots, community-based intervention to reduce stigma related to mental disorders, called *In Our Own Voice (IOOV)*, was tested among older (college-age) adolescents and found to be effective in reducing stigma related to mental disorders (Wood & Wahl, 2006). This study should be replicated in other populations.

An important component of program evaluation is understanding the theoretical foundation of the intervention. *In Our Own Voice* is a promising national community-based intervention that demonstrated efficacy in reducing stigma related to mental disorders in older adolescents, but was designed using an atheoretical approach. The authors conducted an in-depth examination of *IOOV* yielding an initial conceptual model to effectively reduce stigma related to mental disorders in younger adolescents (13-17 years of age) that is amenable to future testing and refinement. Thus, the purpose of this article is to explicate an initial conceptual model that is amenable to testing and guiding anti-stigma interventions in adolescents. To achieve this purpose, first the history and purpose of *IOOV* is explained. Then the conceptual model to reduce stigma related to mental disorders is described. Finally, how the model contributes to nursing research and practice is discussed. *History and Purpose of IOOV*

In 1996, the foundation for the *IOOV* intervention was developed by the National Alliance on Mental Illness (the nation's largest consumer-led grassroots mental health organization) with the program, Living with Schizophrenia and Other Mental Illnesses which entailed discussion among consumers of mental health services to better help each other understand mental disorders. Quickly, the Living with Schizophrenia and Other Mental Illnesses program attracted those outside the mental health community. By 2003, Living with Schizophrenia and Other Mental Illnesses was reconstructed into a manualized anti-stigma, community-based program for diverse audiences called *IOOV*. Since conception, *IOOV* has drawn an audience of over 200,000 individuals, in 37 states (O, Brien, 2007, NAMI, 2008), and demonstrated efficacy among older adolescents. Specifically, Wood and Wahl's (2006) quasi-experimental study with college-age adolescents found that exposure to *IOOV* resulted in a significant reduction of stigma related to mental disorders and improvement in mental health literacy (Wood & Wahl).

Employing four thoughtful strategies, *IOOV* works to reduce stigma related to mental disorders and improve mental health literacy among diverse audiences (O, Brien, 2007). The first strategy involves placing a human face (the *IOOV* presenter) to mental disorders. In that, *IOOV* presenters are in sustained recovery, indistinguishable from individuals without a psychiatric diagnosis, and are viewed as "real" people first and having a mental disorder as second. The second strategy exemplifies a variety of mental disorders by use of a video presentation and personal stories of presenters. This strategy encourages audience members to broaden their ideas about people with mental disorders. The third strategy involves re-framing mental disorders as brain disorders with a strong biological component. This strategy is thought to subdue blame and demonstrate that individuals do not have a mental disorder by choice. The final strategy emphasizes the link between mental health treatment and recovery and is woven throughout the *IOOV* presenters' stories; presenters skillfully link their treatment regimens with their recovery from mental disorders.

In Our Own Voice has three parts that are facilitated by two *IOOV* trained presenters. Presenters have completed a 16-hour *IOOV* training course offered by National Alliance on Mental Illness

(NAMI) and are in recovery from a mental disorder. During *IOOV* training, presenters learn to organize the details of their stories, prepare for audience discussion and questions, maintain personal boundaries, and tailor their presentation to diverse audiences (National Alliance on Mental Illness, 2007; O'Brien, 2007).

Consistent with the *IOOV* strategy of viewing people with mental disorders as “real” people first and having a mental disorder second, *IOOV* begins with informal introduction by each presenter (National Alliance on Mental Illness, 2007). During the informal introductions, presenters state their name and personal facts unrelated to mental disorders. A sample introduction is “My name is Melissa. I am a nurse. In my spare time, I like reading mysteries. I also enjoy long walks and playing with my dog, Lilly.” After the introduction, the components of *IOOV* are administered. The components are: (a) dark days, (b) acceptance, (c) treatment, (d) coping skills, and (e) successes, hopes, and dreams.

The content of *IOOV* is delivered systematically, as prescribed by the *IOOV* manual, and includes (a) a 15 minute video played in segments and synchronized to administration of the five components; (b) storytelling of the presenters' personal journeys through the mental disorder, and (c) questions and discussion with the audience. The sequence of *IOOV* is as follows: for “dark days,” first the audience views the video. Second, the presenters tell their stories using “I” statements (e.g. “I feel,” “I think,” “I experienced”). Third, to stimulate discussion, presenters ask questions of the audience related to “dark days.” At the conclusion of discussion, “dark days” is complete. Presenters then advance to the next component, “acceptance,” which is administered in an identical fashion to “dark days.”

In Our Own Voice is a brief one hour to one and one half hours intervention. *In Our Own Voice* is manualized, but should be tailored to the audience so it is developmentally appropriate and considers the audience's frame of reference regarding mental disorders. For instance, a sample question from “dark days” for an adolescent audience is: “How does hearing about my dark days make you feel?” (National Alliance on Mental Illness, 2007, p. 59). On the other hand, a sample question for adults in the public is: “What kind of perceptions do you have about people with mental illness?” (National Alliance on Mental Illness, p.41).

In Our Own Voice was developed at the grass-roots level, and the approach was atheoretical. Still, *IOOV* is a promising national community-based intervention that demonstrated efficacy in reducing stigma related to mental disorders in older adolescents. Thus, *IOOV* was used to build an initial conceptual model amenable to testing and guide anti-stigma interventions in younger adolescents (13-17 years of age). The conceptual model to reduce stigma related to mental disorders in adolescents is now described.

Conceptual Model to Reduce Stigma Related to Mental Disorders in Adolescents

Intervention research with adolescents is strengthened with a conceptual model (Beadnell, 2007). Prospective use of a conceptual model helps scientists formulate study design, craft directional hypotheses, and realistically assess intervention feasibility for the target group (Sindani & Braden, 1998). On the other hand, retrospective use of a conceptual model can help scientists better explain study results, why interventions were effective or ineffective in producing the desired outcomes (Beadnell). Thus, validity and clinical applicability of findings are enhanced when intervention are undergirded by a conceptual model (Sindani & Braden).

Despite the widespread utilization of interventions like *IOOV*, no conceptual model for anti-stigma interventions among adolescents exists. Although the conceptual model presented here is based on the successful *IOOV* program, in the future it is likely the conceptual model will

be refined to reflect scientific progress in the field of stigma reduction in adolescents. A conceptual model to reduce stigma related to mental disorders in adolescents was created utilizing multiple theories from the disciplines of education, communication, and child/adolescent development. As shown in Figure 1, learning, persuasion, and stage of development are the model constructs. These model constructs form a conceptual model to reduce stigma related to mental disorders in adolescents that is amenable to testing and guiding anti-stigma interventions with this population. Associated with each model construct are middle range theories and their respective empirical indicator(s). Empirical indicators were chosen based on use of instruments in previous studies with adolescents (See Table 1).

Learning

Dual coding theory (Paivio, 1986) is a learning theory that posits individuals learn more when they both see and hear information. Visual and auditory information is processed by two distinct cognitive subsystems- one for visual (imagery) and one for language. Television is a powerful method of information delivery and an exemplar of dual coding theory because it taps both auditory and visual subsystems (Villani, 2001). Among adolescents, Walma van der Molen & Van der Voort, (2006) found television superior to audio or print for information delivery. Similarly, Whitehouse, Maybery, and Durkin (2006) found when images were paired with auditory information, information recall was enhanced. Dual coding theory is included in the conceptual model to reduce stigma related to mental disorders among adolescents because it utilizes both visual and auditory information. *In Our Own Voice* utilizes live storytelling and video presentation which taps both auditory and visual subsystems and likely increases engagement and enhances learning about mental disorders.

Persuasion

Narrative paradigm theory (NPT) (Fischer, 1987) is a persuasive communication theory that explains how people choose among competing stories to construct an account of history (Cragan & Shields, 1995). Narrative paradigm theory has five theoretical assumptions (Fischer). First, NPT proposes that humans are naturally storytellers and learn about the world through telling and listening to stories. Second, NPT assumes humans judge the believability of each story they hear through “good reason.” “Good reason” is operationalized as narrative probability and narrative fidelity. Narrative probability is how individuals evaluate the coherence and consistency of a story; a story is deemed by the listener as either contradictory or consistent with prior stories (Fischer). Narrative fidelity is how truthful the story appears (Fischer). Because individuals may accept irrational stories or reject rational stories based on their values (Cragan & Shields), narrative fidelity takes into account both rational reasons and value-laden reasons for accepting or rejecting stories (Fischer). Third, NPT assumes “good reason” is individualistic and guided by a person's culture, character, experiences, and values. Fourth, NPT assumes that “rationality is determined by the nature of persons as narrative beings” (Fisher, p. 5). In other words, humans deem a particular story rational when it is comparable to one's own lived experiences. Finally, NPT emphasizes humans choose among various stories to construct and reconstruct social reality, an ongoing process.

Although NPT specifically has not framed nursing research, the value of narrative storytelling by the clients is documented (Sandelowski, 1991; Kirkpatrick, 2008; Skott, 2001; Greenhalgh, 2001). Narrative storytelling by the mental health consumer profoundly influences the listener insofar to elucidate multiple realities so the listener can see, hear, and feel life from a different perspective (Frank, 2000). Moreover, after hearing stories, the listener is awakened to a new reality and his or her life seems different (Frank). Narrative stories have the power to challenge and change the listener's current perspectives because it gives the listener access to the human experience, specifically to time, order, and change (Sandelowski, 1991). In addition, stories regarding mental disorders provide a map for the listener (Kirkpatrick). Consequently, the

listener can learn strategies utilized by others to enhance their own recovery from mental disorders and gain a deeper understanding of the nature and trajectory of mental disorders.

In disciplines external to nursing, NPT has demonstrated utility in advertising and marketing research with adults. Utilizing NPT, Bush & Bush (1994) identified components of image advertisements that were considered unethical and unacceptable to the target audience. Similarly, Stutts and Barker (1999) assessed the congruence between the values and life experiences presented in a major television advertising campaign and those of the target audience; effective advertisements mirrored the values and life experiences of the target audience.

Building upon the work of scientists external to nursing, NPT is included in the conceptual model to reduce stigma related to mental disorders for three reasons. First, NPT provides a framework for structuring and analyzing narrative storytelling so it is most effective. Effective storytellers embed into their stories values and life experiences similar to the listener (Fischer). Second, NPT is naturalistic and emphasizes universal assumptions of “humans” (Cragan & Shields, 1999). In other words, all humans, regardless of age, have the ability to choose and judge stories. Finally, NPT is congruent with existing methods of communication utilized by adolescents within their social networks - verbally exchanging information about life experiences (Lerner & Steinberg, 2004).

Stage of Development

Piaget's Adaptation and Equilibrium Theory (1972) explains cognitive development throughout the lifespan. According to Piaget, adolescents are in the final stage, Formal Operational Stage, of cognitive development. During adolescence, individuals begin to think systematically, logically, and abstractly, engage in introspection, and imagine how the present affects the future. Piaget emphasizes that development occurs when individuals receive information from the environment, which begins in childhood. With each new experience, information learned from these experiences is incorporated into individuals' current schema or a new schema is constructed. The constant revision and re-construction of new schemas increase individuals' understanding of the world and accelerates cognitive development..

Piaget's Adaptation and Equilibrium Theory highlights the importance of “first stories” as the most important stories. First stories are deemed by the listener as true and serve a comparison or reference point to judge the truth of other stories (Schrage, 1991). Given that children are exposed to their “first stories” about mental disorders early in life, often through their environment (Hinshaw & Stier, 2008; Wahl, 2003), telling accurate and developmentally appropriate “first stories” about mental health are important for improving stigma and fostering positive attitudes about mental disorders. In other words, telling accurate and developmentally appropriate “first stories,” like those told in *IOOV*, will provide an accurate reference point early in life to compare against future potentially inaccurate stories

Conclusion & Discussion

A successful, existing, and extensively used community-based anti-stigma intervention, *IOOV*, which was tested with older adolescents (Wood & Wahl, 2006) served as the basis for development of this conceptual model to reduce stigma related to mental disorders in adolescents. Although this initial conceptual model was based on an existing anti-stigma intervention, future anti-stigma programs may be developed and tailored for congruence with the model.

This conceptual model to reduce stigma related to mental disorders in adolescents includes model constructs of learning, persuasion, and stage of development, and in total, outlines an

approach to reducing stigma. Middle range theories from the disciplines of education, communication, and child/adolescent development were used to form a conceptual model to reduce stigma related to mental disorders. Empirical indicators and measures provide a specific model for guiding and testing anti-stigma interventions.

To date, most research that involves interventions to reduce stigma among adolescents has used an education only and were ineffective in reducing stigma (Pinto-Foltz & Logsdon, 2009). Pinto-Foltz, Logsdon, and Myers (2009) study among adolescents found a similar relationship between stigma and mental health literacy. Thus, learning alone is insufficient to reduce stigma; persuasion and stage of development should also be included in stigma interventions with adolescents. Persuasion, utilizing narrative paradigm theory as the middle range theory, provides a framework for developing and evaluating interventions based on matching the target audience's values to life experiences to the message. Message matching of the intervention to the target audience may be best accomplished by first learning of the target audience's values and life experiences through qualitative research. Once known, this information can inform persuasive messages in relation to the target audience's stage of development. Stage of development, utilizing Piaget's Adaption and Equilibrium as the middle range theory, informs the approach to the intervention by matching the stage of cognitive development with content of the intervention and provides reason to administer anti-stigma interventions early in the lifespan.

A conceptual model is essential to promptly advancing the science and improving health outcomes of adolescents. Future research should focus on testing and refining the conceptual model. With scientific advances in empirical investigation of stigma related to mental disorders in adolescents, this initial model may expanded to more completely encompass model constructs important for reducing stigma or may be reduced for parsimony. Because measurement of variables associated with stigma reduction in adolescents in its infancy, with further investigation and advances in the measurement, different variables and empirical indicators may be supported with empirical studies. Nevertheless, this conceptual model to reduce stigma related to mental disorders in adolescents is a starting point for nurse scientists working in this area, and initiates discussion of a topic that, until now, is essentially absent from the literature.

Establishing a conceptual model to reduce stigma related to mental disorders in adolescents is a novel and cost-effective approach to advancing nursing science because interventions, like *In Our Own Voice*, can be administered in naturalistic community settings, are highly replicable, and can be rapidly disseminated by professional and community groups. Furthermore, a conceptual model with empirical indicators enhances empirical evaluation of the intervention yielding a casual explanation for the effects of the intervention, and enhances clinical applicability of interventions across settings. Thus, future studies should focus on testing and refining the conceptual model to reflect scientific advances in the field of stigma reduction in adolescents.

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Figure 1.
Model of research to reduce stigma.

TABLE 1

Model Constructs, Theoretical Concepts, Empirical Indicators, Measures

Model Constructs	Middle Range Theoretical Concepts	Empirical Indicators	Measures	#of item	Reliability	Validity
Learning	Dual Coding	Mental Health Literacy	<i>In Our Own Voice</i> Knowledge Measure (Wood & Wahl, 2006)	12	$\alpha = .37$	Unvalidated
Persuasion	Narrative Paradigm	Attitude Toward Mental Disorders	Attitude Toward Seeking Professional Psychological Help (Fischer & Farina, 1995)	10	$\alpha = .68-.73$	Construct Discriminant
		Public Stigma Toward Mental Disorders	Revised Attribute Questionnaire (Watson, et al., 2004)	9	$\alpha = .65-.70$	Content Discriminant
		Private Stigma Toward Mental Disorders	Stigma Scale for Receiving Professional Psychological Help (Komiya, Good, & Sherrod, 2000)	5	$\alpha = .74-.80$	Content Construct Discriminant
Stage of Development	Piaget Adaptation & Equilibrium	Age Experience with mental disorders	Age in years Level-of-contact with mental disorders (Corrigan, et al., 2005)	1 8	N/A	N/A Content
			Nature of the level-of the level of contact with mental disorders (Adapted from Pescosolido, et al., 2007)	1	N/A	N/A

TABLE 2Description of the *IOOV* Intervention

Content	Description
Dark Days	The presenter describes the struggles faced during the most challenging times of the mental disorder.
Acceptance	The presenter describes the process he or she moves through to reach acceptance of the mental disorder.
Treatment	The presenter describes the difficulties and successes of treating the mental disorder.
Coping Skills	The presenter discusses skills and techniques used to slay well.
Successes, Hopes, & Dreams	The presenter describes his or her life successes, future hopes, and dreams.
	The presenter aims to shed a new light on what recovery means.
Method of Delivery	Description
Video	Fifteen minute video synchronized to content components is shown in segments.
Storytelling	Each presenter tells his or her story in approximately 3-5 minute segments.
Questions	Presenters stimulate audience discussion by asking open-ended questions.