



Published in final edited form as:

Psychiatr Serv. 2013 March 1; 64(3): 284–288. doi:10.1176/appi.ps.003782011.

Public Stigma Associated With Psychosis Risk Syndrome in a College Population: Implications for Peer Intervention

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Abstract

Objectives—This study compared stigma associated with the psychosis risk label and diagnostic labels for nonpsychotic and psychotic mental disorders among young adult peers.

Methods—Urban college respondents (N=153) read an experimental vignette describing a young adult experiencing prodromal symptoms who was randomly assigned a diagnostic label (major depression, generalized anxiety disorder, schizophrenia, or psychosis risk with and without accurate information about the psychosis risk label) and answered questions about stigma toward the individual in the vignette.

Results—Compared with labels for non-psychotic disorders, schizophrenia elicited more negative stereotyping and the at-risk label invoked greater social distance and less willingness to help. Any increased social distance appeared to be reduced by accurate information about the at-risk state. No differences in stigma were found for the psychosis risk and schizophrenia labels.

Conclusions—The psychosis risk label alone appeared to evoke greater status loss and discrimination. Accurate information may minimize some stigmatizing attitudes among college peers.

Identification of adolescents and young adults at heightened clinical risk of schizophrenia and related psychotic disorders is a major mental health priority. Psychosis risk syndrome has demonstrated fair predictive validity, given that up to 35% of patients identified as having the syndrome develop psychosis within two to three years (1). However, more than 60% of persons identified as having psychosis risk syndrome do not progress to psychosis.

Disclosures

The authors report no competing interests.

Concern exists about the risks of stigma potentially faced by young people who receive this at-risk label (2), especially because identity consolidation constitutes a crucial aspect of adolescent and young adult development. One approach for understanding potential stigma associated with the label of psychosis risk syndrome is to examine attitudes within peer and school domains (3).

Psychiatric labels, especially those that invoke psychosis, may increase stigma among adolescents (3). Psychosis risk may be conflated with psychosis itself, thereby eliciting pejorative stereotypes and high levels of stigma and discrimination similar to those associated with schizophrenia (4). Prominent stigma domains that might be activated by the psychosis risk syndrome label include stereotyping (when beliefs of a cultural group connect labeled individuals to negative characteristics) and status loss and discrimination (when certain members of society are devalued, resulting in unfair treatment) (4).

Because young people identified as at risk of psychosis typically have comorbid diagnoses of depression and anxiety (5), one strategy for evaluating the stigma associated with the label of psychosis risk syndrome is to compare it with the stigma attached to labels of depression or anxiety. In national surveys of public attitudes toward adolescents labeled with nonpsychotic disorders such as major depression, 19% to 20% of respondents endorsed rejection, indicating moderately negative social distance, and 31% to 42% of respondents perceived such individuals as violent toward others, indicating moderately negative stereotypes (6,7). National surveys also suggested that social distance is even greater when a psychosis label is applied (8). Most respondents reported that individuals diagnostically labeled with schizophrenia are quite likely to be violent toward others (72%) or themselves (76%), which was higher than the range of 30% to 40% of respondents in a separate study who endorsed that individuals with a diagnostic label for nonpsychotic disorders are likely to be violent toward others or themselves (6).

As yet, it is not known how individuals respond to a psychosis risk label involving a member of their peer group and whether their responses more closely resemble responses to labels of schizophrenia or to labels for nonpsychotic disorders, given that the label involves only risk of psychosis, not actual psychosis. Also, given that the concept of psychosis risk is not well known, peer attitudes may be moderated by the provision of accurate information clarifying that only about 35% of individuals designated as at risk actually develop psychosis. A prior study examined whether stigma toward mental illness was affected by information correcting misconceptions of mental illness, such as by providing the information that violent behaviors among persons with mental illness are relatively rare. Less stigma was reported than when no information other than the diagnosis was provided (9).

This study evaluated whether and to what extent the psychosis risk label elicits stigma compared with diagnostic labels related to nonpsychotic and psychotic mental disorders. We further examined whether providing accurate information about the psychosis risk syndrome lessened stigmatizing responses. The psychoticlike experiences of the psychosis risk state, accompanied by intact reality testing and insight, typically begin during adolescence and young adulthood (1), when peer evaluations are particularly relevant to identity processes. Therefore, we ascertained a convenience sample from an urban college to compare attitudes toward the psychosis risk label and toward other diagnoses by using a vignette experiment in which symptoms were held constant and a diagnostic label varied experimentally.

We hypothesized that stigma toward schizophrenia would be greater than toward nonpsychotic diagnoses, such as major depressive disorder and generalized anxiety disorder, in this peer setting. Further, we hypothesized that stigma toward the psychosis risk label

would be greater than stigma toward nonpsychotic diagnoses but less than stigma toward schizophrenia. Finally, we hypothesized that stigma toward the psychosis risk label would be reduced by accurate information regarding the actual risk of developing psychosis.

Methods

A survey designed for this study was administered to a convenience sample of 153 young adults (aged 18 or older) drawn from a subject pool of 800 students enrolled in “Introduction to Psychology” at an urban college in fall 2010. After participants were provided a complete description of the study, written informed consent was obtained from all participants, who received academic credit for participation. Participants were presented with a vignette (described below) followed by questions about stigma dimensions regarding the vignette character. Sociodemographic characteristics were also obtained. The vignette study was administered in 45-minute blocks to groups of six to eight students, who were subsequently debriefed. This study was approved by the Institutional Review Board at the City University of New York.

All participants were administered the same vignette adapted from a published case study (10), which described a young adult experiencing attenuated psychotic symptoms consistent with being at risk of psychosis (11). Although the character’s symptoms were constant across administrations, the character’s race (black or white) and gender were randomly varied. The vignette read as follows:

“John is a shy, 18-year-old, white, male high school senior who was doing fine until about six months ago, with close friends, an A to B average in school, and an interest in movies and basketball. In the past six months, John began to stay up most of the night and sleep during the day, showering less and withdrawing from friends and family. John began to feel as if people in the neighborhood were looking at him more, which made him uncomfortable. When nervous, John sometimes thought he heard his name in the wind, and late at night he sometimes briefly felt a presence even though no one was there. John is interested in politics and is preoccupied with thoughts about the influence of television and mass marketing on people. In the past month, John has sometimes refused to go to school and spends most of his day alone in his room.

“In terms of his family, John’s mother was hospitalized 25 years ago for a mental illness, which she promptly recovered from and which has never returned.

“John was recently brought by his mother to see a psychiatrist for advice about his situation. The psychiatrist diagnosed John with the condition of _____.”

One of five illness labels was randomly assigned for each administration: “major depression” (N=32); “generalized anxiety disorder” (N=32); “schizophrenia” (N=32); “state of high risk of psychosis” without informational insert (N=29); and “state of high risk of psychosis” plus informational insert (N=28). The informational insert read as follows:

“The psychiatrist explained that being at high risk of psychosis means that the person has not yet developed a full psychotic disorder but has some symptoms that might lead to a future psychotic disorder. However, the psychiatrist said only 35% of these individuals will go on to exhibit psychosis within 2.5 years of identification.”

After the vignette was presented, respondents were asked about stigma regarding the vignette character. Stigma was conceptualized as two main dimensions: stereotyping and status loss or discrimination (4). Within stereotyping, the domains measured were illness course and violence toward self and others. Illness course, or conceptions of whether

recovery from illness is possible, was assessed via a six-item scale measuring beliefs about whether the illness ever goes away completely; whether the illness returns at any time; whether an individual remains vulnerable to the condition despite control of symptoms; the possibility of permanent cure (reverse-scored); the necessity of lifelong treatment; and the persistence of the underlying condition, even if symptoms are eliminated (Cronbach's $\alpha=.77$). Stereotypes of "violence towards others" and "violence towards self" were each measured by a single item assessing the likelihood that the individual would do something violent toward other people or toward himself.

The second major stigma dimension, status loss and discrimination, consisted of desire to maintain casual social distance (unwillingness to have the individual as a neighbor or a close friend, two items, Cronbach's $\alpha=.73$) and desire to maintain intimate social distance (unwillingness to allow one's child to date or marry the individual, two items, Cronbach's $\alpha=.85$); unwillingness to help (unwillingness to talk to the individual about his problems and certainty of not helping the individual, two items, Cronbach's $\alpha=.85$), and belief in coercive treatment (agreement that the individual should be forced into treatment with his or her doctor).

Because basic endorsement of the stigma question was considered to be of utmost relevance, we dichotomized response categories for each item that had a 4-point response set (12). Dichotomized items belonging to a scale were summed and treated continuously (13). In no instance did this dichotomization affect the direction or significance of reported effects. In contrast, the items with a 9-point response set were not dichotomized because these items contained a "neutral" point; these items were also summed by scale and treated continuously. Higher scale scores indicated greater stigma. [More information about the stigma dimensions, measures, selected items, item wording, and variable construction is available online as a data supplement to this report.]

An analyses of variance (ANOVA) or multivariate ANOVA (MANOVA) was conducted to evaluate the effect of the five labeling conditions on continuous stereotyping and status loss and discrimination items. If the ANOVA or MANOVA results were significant, pairwise *t* tests were conducted to compare means. Chi square analyses were conducted to evaluate the dichotomous stereotyping items of violence toward others and violence toward self. Alpha was set at $p<.05$ for all analyses (two tailed), which were conducted by using SPSS 18.0.

Results

Among the participants, the mean \pm SD age was 19.97 \pm 4.40 years, 67% (N=102) were female, 7% (N=11) were white, 26% (N=40) were black, 29% (N=44) were Latino, 24% (N=36) were Asian, and 12% (N=18) and 3% (N=4), respectively, were of other or unknown race or ethnicity. Participants' religions included Christianity (61%, N=94), Islam (12%, N=18), other (5%, N=7), and none (22%, N=34). More than half (58%, N=88) were U.S. born, and average household annual income was \$36,600 \pm \$32,200. A third of the sample (35%, N=53) endorsed knowing one or more individuals personally who had been hospitalized for mental illness. Sociodemographic variables among respondents did not significantly differ across the randomized diagnostic label groups (data not shown).

An ANOVA examining labeling condition and illness course was significant ($F=2.31$, $df=4$ and 35, $p<.05$). A MANOVA examining labeling condition and the four measures of status loss and discrimination was also significant (Wilks' lambda $F=1.82$, $df=16$ and 425, $p<.05$). The results of stigma dimension measures for each diagnostic label are presented in Table 1. Major depression and generalized anxiety disorder did not differ by stigma dimensions and

were therefore combined as a single group labeled nonpsychotic disorders for further analyses of stigma using pairwise comparisons.

To examine the relationship between label and stigma, we conducted pairwise comparisons (Table 1). As expected, the schizophrenia label was significantly associated with more stigma than labels for nonpsychotic disorders, specifically for stereotyping. Participants were more likely to believe the person labeled with schizophrenia would be more violent toward others and have a worse course of illness. Second, the psychosis risk designation was significantly associated with more stigma in terms of status loss and discrimination than labels for nonpsychotic disorders. Respondents reported a stronger desire for casual social distance and less willingness to help. Third, and contrary to hypotheses, participants did not endorse significantly less stigma for the psychosis risk designation than for the schizophrenia label. Finally, as hypothesized, participants endorsed significantly less stigma across some domains for the psychosis risk designation when an informational insert was added. The informational insert was associated with less belief in violence toward self and also with reduced desire for casual social distance.

Discussion

Our study was the first to use an experimental vignette design to compare stigmatizing attitudes toward a psychosis risk designation and other psychiatric labels. Although the psychosis risk designation evoked greater stigma related to status loss and discrimination than labels for nonpsychotic disorders among a group of college peers, the informational insert significantly reduced the negative impact of the at-risk designation across some stigma domains. As hypothesized, the schizophrenia label elicited more stigma than labels for nonpsychotic disorders within the stereotyping domain. Stigma associated with the psychosis risk and the schizophrenia labels was not significantly different.

Stigma among our college student sample was reduced when participants were provided accurate information about the real risk of psychosis (approximately 35%) associated with the psychosis risk syndrome. This finding contrasted with the results of another study, which reported that providing information about symptoms of schizophrenia did not lead to reduced stigma (14). Specifically, the desire for casual social distance, which was associated with the psychosis risk label alone, was reduced by accurate information. Further, the perception that an individual identified as at risk for psychosis might harm himself or herself was also reduced by accurate information.

These findings have implications for communicating information about the psychosis risk state to young adults who receive this label during college, many of whom are still undergoing a period of identity consolidation (3). These young adults are at risk of discrimination by their peers, who may be more likely to avoid them in casual social interactions and less willing to offer help. Further, these young adults might apply such stereotypes to themselves (4), which may result in harm to their still-developing sense of self and normalcy (3). The reduction of stigma by accurate information suggests that psychoeducation about the psychosis risk syndrome may be effective in the college setting. Such education is already provided to young people who receive this designation in clinical research settings (2), and future development of psycho-educational interventions for individuals of college age should evaluate the effectiveness of providing this additional information in reducing internalized stigma.

Study limitations included convenience sampling that resulted in restricted external validity to urban, college populations and in a small, disproportionately female sample, which led to an increased risk of type II error. Although we assessed socio-demographic variables and

whether the participants knew someone who was hospitalized for mental illness, the sample size was not large enough to determine whether these variables interacted with labeling condition to modify stigma. Another limitation was that we operationalized several stigma constructs with single items, which did not allow assessment of reliability, although these items generally predicted stigma in hypothesized directions. A third limitation was that we utilized shortened stigma scales and dichotomized some items; however, these scales showed good psychometric properties, and dichotomization did not affect the significance of results, thus mitigating any threat to internal validity.

Future studies might utilize longer versions of stigma scales. Our vignette methodology might be used to replicate these findings in a larger, randomized, stratified sample to increase generalizability and to test whether stigma varies by key sociodemographic variables. Future studies may also assess whether stigma is associated with a modified vignette depicting someone labeled with “attenuated positive symptoms,” another common designation for this syndrome. Finally, further studies might examine the relationship between mental health knowledge and stigma, whether stigma extends to family members, and whether variation in stigma persists across cultures (15).

Conclusions

This study examined the potential stigma associated with a psychosis risk designation. The at-risk label alone invoked more casual social distance and unwillingness to help compared with labels for nonpsychotic disorders, suggesting that further investigation of stigma is warranted. However, increased casual social distance appeared to be reduced by accurate information about the at-risk state, providing initial direction for reducing stigma. We hope that this initial study will spur further research on this important topic, given that the psychosis risk designation is increasingly implemented worldwide.

Acknowledgments

The preparation of the manuscript was supported in part by awards from the Brain and Behavior Research Foundation (17839), the Rollin M. Gerstacker Foundation, the Calder-one Prize, and the National Institute of Mental Health (NIMH) (R01 MH096027) to Dr. Yang and from NIMH (K23 MH06627901A2) to Dr. Corcoran. The authors thank the Irving Center at Columbia University Medical Center for support, Meredith Chapman, M.A., for assistance with the Columbia University Medical Center Institutional Review Board, and Rebecca Frantz, M.A., and Kristy Nguyen, M.A., for help in compiling the data.

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Table 1
Dimensions of stigma associated with psychosis risk syndrome and other psychiatric labels

Dimension	Pairwise comparisons													
	Psychosis risk syndrome				Nonpsychotic disorders				Psychosis risk syndrome					
	Nonpsychotic disorders ^a		Schizophrenia		Without insert ^b		With insert		Versus schizophrenia		Versus psychosis risk syndrome		Versus psychosis risk syndrome with insert	
N	%	N	%	N	%	N	%	Test statistic	df	Test statistic	df	Test statistic	df	
Stereotyping														
Illness course ^c	3.0±1.7		4.0±1.9		3.7±1.8		2.8±1.8		t=-2.64**	94	ns			ns
Violence toward others likely	64	41	32	63	29	55	36	36	χ ² =4.09*	1	ns			ns
Violence toward self likely	63	78	32	81	29	79	28	54	ns	ns				χ ² =4.28*
Status loss and discrimination														
Casual social distance ^d	.6±.7		.6±.8		1.0±.8		.5±.7		ns					ns
Intimate social distance ^d	1.9±.4		1.8±.5		1.8±.6		2.0±.0		ns					ns
Unwillingness to help ^e	3.1±2.7		3.7±3.6		5.4±5.1		3.2±3.6		ns					ns
Treatment coercion ^f	4.2±2.2		5.3±2.7		4.0±2.4		5.0±2.2		ns					ns

^aIncludes major depressive disorder and generalized anxiety disorder

^bThe insert provided information about the actual risk of psychosis associated with psychosis risk syndrome.

^cPossible scores range from 0 to 6, with higher scores indicating more stigmatizing attitudes.

^dPossible scores range from 0 to 2, with higher scores indicating more stigmatizing attitudes.

^ePossible scores range from 0 to 16, with higher scores indicating more stigmatizing attitudes.

^fPossible scores range from 0 to 8, with higher scores indicating more stigmatizing attitudes.

* p ≤0.05,

** p ≤0.01