Stigma related to labels and symptoms in individuals at clinical high-risk for psychosis

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Introduction

Early intervention for individuals at clinical high-risk (CHR) for psychosis offers the possibility of forestalling the development of threshold psychosis (Fusar-Poli, 2012), but simultaneously confers a label of risk with potentially stigmatizing consequences (Carpenter, 2010; Corcoran, 2005; Yang, 2013). This issue is salient, as the label of risk is conferred upon all participants in a high-risk cohort, irrespective of whether they ever progress to full-blown psychosis (Yang, 2010). Capturing complex issues of labeling and stigma in this population is crucial to optimally assist youth at a possibly critical juncture. Our study presents measures of the potentially stigmatizing effects of the label of risk for psychosis, while simultaneously assessing the stigmatization participants may experience due to symptoms.

1.1-Stigma of Psychiatric Labeling and CHR

While stigma has myriad manifestations, forms of stigma traditionally linked with "labeling processes" (i.e., when an individual is diagnosed with mental illness via contact with a mental health clinic) have been most studied (Link, 1989). One such labeling-related stigma process includes stereotype awareness, or when stigmatized persons become aware of negative stereotypes and subsequently withdraw from others due to anticipated rejection. In

the closely-linked concept of "self-stigma" (Corrigan, 2006), psychiatrically labeled individuals might internalize and apply stereotypes to themselves in psychologically harmful ways (Ritsher, 2004), including agreeing with negative stereotypes and feeling ashamed (Rüsch, 2014a). A recent meta-analysis demonstrates that internalized and self-stigma show a particularly robust relationship with psychiatric symptom severity (r=.41, p<.001) (Livingston, 2010).

Recent cross-sectional (Rüsch, 2014a) and longitudinal (Rüsch, 2014e) studies of early identified youth at high risk of psychosis, ultra-high risk of psychosis, or risk of bipolar disorder have demonstrated negative effects of stigma and self-labeling on "stigma stress" and psychological well-being. We build on these promising studies, which employed single-item assessment, by characterizing both stigma associated with the label of risk and stigmatizing reactions to symptomatic behaviors; e.g., feeling "different" due to unusual perceptual experiences. Regarding traditionally-defined labeling-related stigma concepts (i.e., when individuals become aware of or internalize societal stereotypes following psychiatric labeling), "stereotype awareness and self-stigma" includes awareness of societal stereotypes ("stereotype awareness" (Link, 1989)), agreement with such stereotypes ("stereotype agreement" [Corrigan, 2006]), and experiencing emotions of shame or differentness ("negative emotions [shame]" (Link, 2004)). Furthermore, stigma associated with a label of risk (e.g., attending a specialized CHR clinic) could also evoke positive feelings (e.g., relief; "positive emotions") coping responses, (e.g., concealment; "secrecy" (Link et al., 1989)), unfair community treatment ("experienced discrimination"), and conversely, forms of help ("experienced support").

1.2-Stigma Associated with Symptoms

Stigma associated with symptoms has particular salience because the CHR label, applied while initiating early identification and treatment of symptoms, may have powerful *positive* effects, by reducing stigma related to these symptoms. Early identification via labeling may provide benefits by offering an explanatory model, validating experiences (Hayne, 2003), and initiating focal treatment (McGorry, 2002). Thus, early identification might reduce stigma via treating symptoms which lead to social isolation (a risk factor for psychosis-onset), thereby averting potent effects of a full-blown psychosis label and/or hospitalization (McGorry, 2001). Further, individuals identified as CHR likely already experience marked co-morbidity including anxiety and depression (Corcoran, 2011), which already evoke stigma. Accordingly, any additional stigma from being identified as CHR may be outweighed by reducing symptoms and any concordant stigma (Corcoran, 2005).

We introduce measures assessing stigma of symptoms that are designed specifically for a CHR cohort, so that stigma from varying sources (labeling vs. symptoms) might be distinguished. While labeling-related stigma arises in relation to being psychiatrically labeled (i.e., attending specialized CHR clinic services), 'stigma of symptoms' manifests specifically due to the odd symptoms or behaviors associated with CHR. Complementary to the labeling-related stigma domains, stigma of psychotic-like symptoms might include shame-related emotions (e.g., associated with hallucinatory experiences: "negative emotion [shame]-symptoms" (Lysaker, 2008)), positive emotions (e.g., feeling hopeful; "positive

emotion-symptoms" (Schrank, 2014)), concealment ("secrecy- symptoms" (Ryder, 2000)), discrimination ("experienced discrimination-symptoms" (Penn, 2000)), and support from community others ("experienced support-symptoms" (Wong, 2009)).

1.4-Aims and hypotheses

This study's aims were threefold. For Aim #1, we characterized to what extent labeling-related stigma was experienced by CHR individuals. When possible, we descriptively compared stereotype awareness to published data from a sample of adolescents with non-psychotic disorders (Moses, 2009). This adolescent (12 to 18 years old) sample was recruited from a mental health care service for adolescents with severe emotional disturbance and was markedly impaired with ADHD, depression, anxiety or conduct disorder. For Aim #2a, we tested associations among the labeling-related "stereotype awareness" and "self-stigma" constructs, specifically stereotype awareness, stereotype agreement and negative emotions (shame). For Aim #2b, based upon meta-analysis results (Livingston, 2010), we examined the association of anxiety and depression with self-stigma related to the CHR label and with self-stigma related to symptoms, adjusting for core CHR symptoms of negative and attenuated psychotic symptoms. For Aim #3, we compared labeling-related stigma vs. symptom-related stigma. If the label of risk is stigmatizing, we might expect elevated stereotype awareness and agreement (aim #1), significant associations among labeling-related stigma concepts (aim #2a), significant associations between labeling-related stigma with symptoms (aim #2b), and higher label-related stigma (aim #3). Alternatively, if stigma of symptoms is more prominent, we might expect significant associations between symptom-related stigma and symptoms (aim #2b) and higher symptom-related stigma (aim #3).

Methods

2.1-Procedure

Assessments were conducted within a longitudinal cohort study of psychosis-risk at the Center of Prevention and Evaluation (COPE) in the New York State Psychiatric Institute (NYSPI)/Columbia University Medical Center. Individuals enrolling at COPE were informed that they met criteria for being at-risk for psychosis, which was like the experiences and symptoms they were already experiencing, but more severe, which might further impact functioning. They were also informed that about 65% of participants would not develop psychosis. They were reassured that were they to develop psychosis, they would immediately receive one of several beneficial treatments.

Thirty-eight CHR participants were administered a battery of stigma measures after CHR identification, on average 11.5 (SD=11.7) months after entering the specialized CHR clinic. Symptom measures took place at baseline and every 3 months thereafter; the most proximal symptom ratings to the stigma assessment were utilized.

2.2-Subjects

CHR individuals were help-seeking and met criteria for at least one of three psychosis-risk syndromes, as assessed with the Structured Interview for Prodromal Syndromes (SIPS;

Miller, 2003). Patients were between 12–30 years old and English-speaking. Exclusion criteria included history of psychosis, serious risk of self-harm/violence, major medical/ neurological disorders, IQ<70, and psychotic-like symptoms accounted for by substance abuse or another psychiatric disorder. CHR individuals were referred from a wide network of school administrators and clinicians, or self-referred. Informed written consent was obtained from adult participants and from parents of minors, who themselves provided written assent. This study was approved by the NYSPI/Columbia University Institutional Review Board.

Table 1 summarizes sample characteristics; >85% had been diagnosed with a non-psychotic Axis I disorder, typically anxiety and depression, prior to enrollment. The one individual in Table 1 who had received what was determined to be a prior erroneous diagnosis of "schizophrenia" by community clinicians was referred to COPE within one week of this diagnosis and was found to not have met full criteria for psychosis or schizophrenia, and instead met criteria for CHR. In order to preserve the study's naturalistic validity whereby inaccurate diagnoses may result from prior non-standardized clinical assessments and because inclusion of this individual did not change the main results, we retained this individual in all analyses.

2.3-Measures

All stigma measures were adapted from scales developed by Link (1989), with language modified for CHR youth. Unless otherwise specified, stigma items used a 4-point Likert scale (1=*strongly disagree* to 4=*strongly agree*). Sociodemographic and illness characteristics (other diagnoses and medication use; scored: 0=no, 1=yes) were assessed via self-report.

2.3.1-Stigma Measures

2.3.1.1-Stigma of Labeling: 2.3.1.1.1-"Stereotype Awareness (CHR version)" was assessed utilizing a 17-item scale (Table 2) assessing the extent to which youth perceive that adolescents with emotional/behavioral problems are, as a group, devalued, socially-excluded, and treated unfairly (Cronbach's alpha=.70, (Moses, 2009)). Nine items were reversed to be phrased in a less stigmatizing fashion.

2.3.1.1.2-"Stereotype Agreement (CHR version)" was assessed utilizing a 12-item measure (Cronbach's alpha=.68; Table 2) assessing the extent to which respondents agreed with societal stereotypes. As above, six items were reversed.

2.3.1.1.3-"Negative Emotions (Shame)" were assessed utilizing a 3-item scale assessing "shame", "embarrassment" or "feeling different from others" due to attending a specialized CHR program (Link, 2002). A sample item reads, "About coming to this program, I have felt ashamed." Items used a 4-point Likert scale *(1=Not at all* to *4=A lot)*, then summed (Cronbach's alpha=.60). Further, "positive emotions" were assessed utilizing a 6-item scale (Cronbach's alpha=.84). A sample item read, "About coming to this program, I have felt hopeful." (See supplemental table A.)

2.3.1.1.4-"Secrecy" was assessed utilizing a 5-item scale assessing whom the respondent had told of their status (Link, 2002). A sample item reads, "I have told no one that I come to this program." Items used a 2-point scale (1=No; 2=Yes), then summed (Cronbach's alpha=. 60). (Supplemental table A)

2.3.1.1.5-"Experienced Discrimination" was assessed using a 5-item scale gauging interpersonal stigma from others (Wahl, 1999). Items used a 5-point scale (1=*Never* to 5=*Very Often*). A sample item reads, "Because I am in this program, people are a little afraid of me." "Experienced support" was assessed using one 5-point item (i.e., "Because I am in this program, people are supportive of me"). (Supplemental table A)

2.3.1.2-Stigma of Symptoms: In presenting new scales assessing stigma associated with symptoms, the same phrasing (and anchor points) as the labeling-related scales were used, except with respect to symptoms. Respondents were asked to respond regarding their symptoms and experiences that led them to come to the CHR clinic. These measures were comprised of "Negative Emotions (Shame)-Symptoms" (3 items, Cronbach's alpha=.74; sample item reads, "About my symptoms and experiences, I have felt ashamed"), and "Positive Emotions-Symptoms" (5 items, Cronbach's alpha=.65; sample item reads, "About my symptoms and experiences, I have felt hopeful"). Additional measures consisted of "Secrecy-Symptoms" (5 items, Cronbach's alpha=.63; sample item reads, "I have told no one that I have symptoms"), "Experienced Discrimination-Symptoms" (5 items, Cronbach's alpha=.84; sample item reads, "Because I have had symptoms, people seem to be a little afraid of me"), and "Experienced Support-Symptoms" (1 item, i.e., "Because I have had symptoms, people are supportive of me"). (Supplemental Table A)

2.3.2-Prodromal Symptoms—CHR symptoms were assessed using the Structured Interview for Psychosis-Risk Syndromes/Scale of Prodromal Symptoms (SIPS/SOPS) (Miller, 2003), which probes positive (5 items), negative (6 items), disorganized (4 items), and general symptoms (4 items). All items are rated from 0 [absent] to 6 [severe; with the positive symptom scale, 6 represents "psychotic"], with a "prodromal" range of 3–5 for positive symptoms only. Because the general symptom subscale overlapped with symptoms of anxiety and depression (e.g., "dysphoria" item with depression), this subscale was excluded.

2.3.3-Symptoms of Anxiety and Depression—Anxiety symptoms were evaluated using the Beck Anxiety Inventory (Beck, 1988) (14-items; Cronbach's alpha=.82). Depressive symptoms were evaluated using the Beck Depression Inventory (Beck, 1961) (21-items; Cronbach's alpha=.89). All items were scored *0=not present* to *3=severe.* Both have evidenced good psychometric properties with CHR individuals (Corcoran, 2012; DeVylder, 2014).

2.3-Analyses

Distribution of continuous variables was examined for skewness and kurtosis. For *apriori* hypotheses, alpha was *p*<.05, and trend findings noted at *p* <.10 (all tests two-tailed). For Aim #1 characterizing labeling-related stigma for "Stereotype Awareness" and "Stereotype

Agreement", we conducted one-sample t-tests comparing each item's mean with the scale midpoint (2.5). Because *apriori* hypotheses were not proposed for these analyses, a Bonferroni correction was used (p<.002; p<.05 divided by 29 tests). Stereotype awareness items were descriptively compared with published data (Moses, 2009). (Table 2)

For Aim #2a, *apriori* hypotheses were assessed via Pearson correlations between: a) "stereotype awareness" and "stereotype agreement"; b) "stereotype agreement" and "negative emotions (shame)" (Livingston, 2010). For Aim #2b, we tested *apriori* hypothesized associations between self-stigma ("negative emotions [shame]"-labeling and symptom-related versions) and symptoms of anxiety and depression via linear regression models. We first examined whether potential covariates (gender, age, education, income, race, employment, months attending COPE, prior psychiatric diagnosis, medication use; [Livingston, 2010]) were significantly associated (*p*<.05) with both negative emotions (shame), either the labeling or symptom-related versions, and psychiatric symptoms (anxiety or depression). After testing, none of these variables met this condition and thus were not entered in subsequent regression analyses. Regarding Aim #2b, as a first step, labeling-related self-stigma ("negative emotions [shame]") was entered into each regression model with separate outcomes of anxiety and depression. As a second step, symptom-related self-stigma ("negative emotions [shame]" symptoms) was entered into the regression model. As a third step, the SOPS positive, negative, and disorganized symptom subscales were entered together as covariates into each regression model to adjust for effects of core CHR symptoms on outcomes of anxiety and depression.

For Aim #3, labeling-related stigma was compared with symptom-related stigma using "negative emotions (shame)", "positive emotions", "secrecy", "experienced discrimination", and "experienced support" scales via paired-sample t-tests. Because *apriori* hypotheses were not proposed, a Bonferroni correction was used (p<.01; p<.05 divided by 5 tests).

Results

3.1-Aim #1-Describing Stigma in the CHR

Percentage agreement and mean (SD) are listed for each stereotype awareness and stereotype agreement item, with mean (SD) from a prior study of adolescents with non-psychotic disorders (Table 2). Among stereotype awareness items, >50% (9/17) were above the 2.5 scale midpoint. When examining items that were significantly different than the midpoint and had a >.5 scale-point difference when compared to an adolescent sample mean (Moses, 2009), three items ('trouble taking care of themselves', 'more dangerous', 'can be trusted just as much' [reversed]; smallest *t*(37)=3.88, p<.001) met both criteria, indicating higher awareness of stereotypes on these items among CHR individuals compared with other nonpsychotic adolescents. In contrast, among stereotype agreement items, 80% (8/10) were below the 2.5 scale midpoint. All four items that showed significant differences ("more creative" [reversed], "have themselves to blame", "should be treated like everyone else" [reversed], "just as smart" [reversed]) were below the scale midpoint (smallest *t*(37)=−3.58, p<.001). Overall, awareness of stereotypes was more common than agreement with stereotypes.

Percentage agreement and mean (SD) are listed for items from the remaining labeling-related and symptom-related stigma scales, including "Negative Emotions (Shame)", "Positive Emotions", "Secrecy," "Experienced Discrimination", and "Experienced Support" (Supplemental Table A).

3.2-Aim #2-Relationship of Self-Stigma (Labeling and Symptoms) with Anxiety and Depression

For Aim #2a, moderate and significant correlations existed between: a) "stereotype awareness" and "stereotype agreement" ($r[38]=36$, $p=.026$) and b) "stereotype agreement" and "negative emotions (shame)" ($r[38]=.37$, $p=023$).

For Aim #2b, label-related "negative emotions (shame)" significantly predicted variance when first entered into a regression model with anxiety as an outcome (Table 3, Part A-Model 1). As a second step, symptom-related self-stigma (symptom-related "negative emotions [shame]") did not contribute significant variance when entered (Table 3, Part A-Model 2). After entering positive, negative, and disorganized CHR symptoms into the final model (Table 3, Part A-Model 3), greater labeling-related "negative emotions (shame)" and a trend effect for fewer negative symptoms were significantly associated with increased anxiety.

For depression in Aim #2b, as a first step, labeling-related "negative emotions (shame)" did not contribute significant variance when entered (Table 3, Part B-Model 1). As a second step, symptom-related "negative emotions (shame)" significantly explained variance for depression (Table 3, Part B-Model 2). After entering CHR symptoms in the final model (Table 3, Part B-Model 3), only greater symptom-related "negative emotions (shame)" showed a trend significant association ($p=.06$) with increased depression.

3.3-Aim #3-Comparing Labeling-Related Stigma vs. Symptom-Related Stigma

As an initial analysis (see Table 4A), four of the five correlations between corresponding labeling-related and symptom-related stigma scales– "negative emotions-[shame]"; "positive emotions"; "secrecy"; "discrimination" (all $p > .10$)– were not significant. However, labeling-related and symptom-related support scales were significantly associated. That scales were not highly intercorrelated suggests that they assessed distinct constructs.

When comparing stigma sources (see Table 4B), symptom-related "negative emotions (shame)" was significantly greater than labeling-related "negative emotions (shame)". Furthermore, symptom-related "discrimination" was significantly greater than labeling-related "discrimination". By contrast, labeling-related "positive emotions" (shortened to 5 corresponding items) were significantly greater than symptom-related positive emotions. No significant differences were found between symptom-related "secrecy" vs. labeling-related "secrecy", nor labeling-related "support" vs. symptom-related "support".

Discussion

4.1-Impact of "Labeling-Related" vs. "Symptom-Related" Stigma

Our findings indicate that both stigma of the label of risk and stigma of symptoms contribute to CHR individuals' experience. Regarding labeling-related stigma and similar to other psychiatric conditions (Livingston, 2010), stereotype awareness was relatively high, and associations between stereotype awareness, stereotype agreement, and negative emotions (shame) were significant. Moreover, labeling-related shame was associated with increased anxiety. On the other hand, agreement with stereotypes appeared lower, indicating that labeling-related stigma had not fully permeated self-conceptions, which is an optimistic finding in that identification as CHR did not necessarily lead to agreement with stereotypes. That positive emotions (e.g., relief) associated with labeling-related stigma were more strongly-endorsed indicates beneficial effects of CHR identification. Symptom-related stigma appeared more salient overall at this early point in illness, and was linked with increased depression.

4.1-Advances in Understanding Stigma in CHR individuals

While prior studies (Rüsch, 2014a; 2014e) have demonstrated negative overall effects of stigma on broadly-defined psychological well-being in CHR persons, our study is the first to characterize "labeling" vs. "symptom" stigma. Because stigma from these two sources might act differently, differentiating their effects upon anxiety and depression may facilitate intervention. Regarding labeling, awareness of stereotypes was moderately high, with three items appearing even more highly-endorsed when compared with a markedly impaired adolescent sample with non-psychotic disorders from specialized mental health care services (Moses, 2009), suggesting that particular stereotypes gain salience upon CHR identification. These stereotypes of "dangerousness", "trouble with self-care", and "untrustworthiness" are linked with psychosis, and even in the absence of actual agreement with these stereotypes, mere awareness of such stereotypes has been associated with negative outcomes via anticipated rejection from others (Link, in press). That labeling-related shame was linked with increased anxiety might be attributable to heightened fears in others discovering one's CHR status (Rüsch, 2014a). Clinicians might address an individual's sense of shame, and help develop selective disclosure strategies regarding whom to tell about their label and what to say. Building upon youths' inclination to disagree with stereotypes might provide a source of resilience to reduce shame (Rüsch, 2014e) and bolster positive emotions (i.e., understanding) associated with CHR identification (McGorry, 2002).

Our study is also the first to systematically parse stigma related to symptoms. Because symptom-related stigma was more salient during CHR identification, this suggests that targeting this newly-identified domain might alleviate key aspects of stigma. Further, because symptom-related shame may be linked to depression via negative affect ("feeling worse about oneself" (Schrank, 2014)) stemming from having unusual experiences (Stowkowy, 2014) that may lead to a reduction in social interaction (Corcoran, 2011), destigmatizing psychotic-like experiences may have utility. These complementary results suggest that alleviating symptoms—and any related shame—should provide a major benefit for early treatment (McGorry, 2001).

4.3-Limitations and Future Directions

Study limitations include a relatively small sample of self-selected individuals who because of their willingness to attend a CHR program, may endorse less stigma. Also, we cannot ascertain causality because of our cross-sectional design; it is plausible that increased symptoms of anxiety and depression predispose individuals to feeling shamed. Finally, internal consistency of several of the new stigma scales are >.7, including the labeling-related emotions (shame) measure (*Cronbach's alpha*=.60). While this internal consistency is less than desirable, the labeling-related emotions (shame) measure did demonstrate hypothesized construct validity, in that it was moderately and positively associated with stereotype agreement, and that it was significantly associated with anxiety even after controlling for covariates. To increase internal consistency, future studies might increase the number of items (e.g., with the labeling-related emotions [shame] scale) or expand the response categories from dichotomous to a four-point scale (e.g., with the secrecy scales).

Our results indicate that CHR individuals may benefit from formal anti-stigma efforts to address labeling- and symptom-related stigma. Future studies might also address culture-specific aspects of stigma (Yang et al, 2013; Yang et al, 2012) as this early identification is being adopted worldwide. Implementing procedures to avert stigma linked with the CHR status would ameliorate a major concern about its use to facilitate early identification worldwide.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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Dr. Yang takes responsibility for the primary conceptualization of this study, including study and instrument design, data collection, data analyses and interpretation, and manuscript write-up. Dr. Link contributed to overall study conceptualization, including the study and instrument design, interpretation of data, data analyses, and manuscript write-up. Ms. Ben-David contributed to study design, adaptation of study measures, and data collection. Ms. Gill, Dr. Girgis, Dr. Brucato, and Ms. Wonpat-Borja contributed to data collection, and manuscript write-up. Dr. Corcoran contributed to overall study conceptualization, including the study and instrument design, interpretation of data, data analyses, and manuscript write-up. All authors contributed to and have approved the final manuscript.

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Table 1

Sample Characteristics

	Participants (*n*=38)	
	***n* (%)**	**Mean (*SD*)**
AGE		22.3 (3.1)
SEX		
Male	24 (63.2%)	
Female	14 (36.8%)	
YEARS OF EDUCATION		14.1 (1.9)
INCOME (dollars/ year)		11,020 (11,300)
MARITAL STATUS		
Not married	38 (100.0%)	
RELIGION		
Christian	12 (31.6%)	
Buddhist	1 (2.6%)	
None/other	25 (65.8%)	
EMPLOYMENT		
Not employed	9 (23.7%)	
Employed (full-time or part-time)	7 (18.4%)	
Student	20 (52.6%)	
Volunteer	2 (5.3%)	
RACE		
White	12 (31.6%)	
Black	4 (10.5%)	
Hispanic	15 (39.5%)	
Asian	4 (10.5%)	
Other	3 (7.9%)	
MONTHS IN HRP CLINIC		11.5 (11.7)
OTHER DIAGNOSES[†]		
None	5 (13.9%)	
One or more	31 (86.1%)	
Anxiety disorder[1]	15 (41.7%)	
ADHD	8 (22.2%)	
Depressive disorder[2]	14 (38.9%)	
Bipolar disorder	2 (5.6%)	
Personality disorder[3]	2 (5.6%)	
Psychotic disorder[4]	1 (2.6%)	
MEDICATION[*]		
Yes (Nonpsychotic)	15 (23.7%)	
Yes (Psychotic)	6 (15.8%)	
No	23 (60.5%)	

	Participants (*n*=38)	
	n (%)	Mean (*SD*)
SYMPTOMS		
Prodromal		
Total positive		11.6 (3.8)
Total negative		14.2 (7.2)
Total disorganized		8.3 (3.8)
Anxiety Symptoms		16.7 (12.2)
Depressive Symptoms		13.7 (10.3)

[1] Includes anxiety, anxiety disorder, social anxiety, chronic anxiety, GAD, OCD, conversion disorder

[2] Includes depression(s), MDD, dysthymia, "psychiatrists mentioned MDD"

[3] Includes borderline, schizoid personality disorder, "possible personality disorder"

[4] Includes schizophrenia

[†] Note n=36 due to missing data

[*] Total percentage does not equal 100% because some respondents reported taking both nonpsychotic and psychotic medications

Table 2

Stereotype Awareness and Stereotype Agreement

Stereotype Awareness	Percentage Agreed (%)	Present Study Mean (SD)	Moses (2009) Mean (SD)
Most people believe that young people with emotional problems have trouble taking care of themselves	86.8%	3.2[*] (.73)	2.1 (.65)
Most people believe that young people with emotional problems may be more dangerous	84.2%	3.2[*] (.75)	2.4 (.77)
Most people believe that young people with emotional problems can be trusted just as much (R)	86.8%	3.1[*] (.62)	2.2 (.81)
Most people believe that young people with emotional problems will have these problems all their lives	55.3%	2.6 (.78)	2.2 (.75)
Most people believe that young people with emotional problems are more creative (R)	42.1%	2.2 (.80)	
Most people believe that young people with emotional problems are no different (R)	76.3%	3.0[*] (.75)	
Most people believe that young people with emotional problems can do as well in school (R)	47.3%	2.3 (.97)	2.1 (.81)
Most people believe that young people with emotional problems have themselves to blame	63.2%	2.7 (.81)	2.3 (.82)
Most people believe that young people with emotional problems should be treated like everyone else (R)	39.4%	2.4 (.82)	
Most people believe that young people with emotional problems are just as smart (R)	50.0%	2.6 (.83)	2.9 (.87)
Most employers would hire a young people with emotional problems (R)	68.4%	3.0 (.90)	2.3 (.84)
Many people my age are afraid of young people with emotional problems	68.4%	2.8 (.75)	2.4 (.72)
Many people my age would be fair and respectful to young people with emotional problems (R)	42.1%	2.4 (.89)	
Many people my age would tease or harass young people with emotional problems	44.7%	2.4 (1.02)	2.3 (.40)
Many people my age would date young people with emotional problems (R)	34.2%	2.3 (.83)	2.0 (.55)
Many people my age would hang out with young people with emotional problems (R)	23.7%	2.2 (.61)	2.2 (.76)
Most teachers give young people with emotional problems a hard time	31.5%	2.2 (.75)	2.1 (.78)
Overall (Stereotype Awareness)		44.4 (5.65)	

Stereotype Agreement	Percentage Agreed (%)	Present Study Mean (SD)
I believe that young people with emotional problems have trouble taking care of themselves	76.3%	2.8 (.66)
I believe that young people with emotional problems may be more dangerous	63.2%	2.7 (.85)
I believe that young people with emotional problems can be trusted just as much (R)	42.1%	2.3 (.87)
I believe that young people with emotional problems will have these problems all their lives	36.9%	2.2 (.84)
I believe that young people with emotional problems are more creative (R)	21.1%	2.1[*] (.77)
I believe that young people with emotional problems are no different (R)	28.9%	2.1 (.98)
I believe that young people with emotional problems can do as well in school (R)	26.4%	2.0 (1.04)
I believe that young people with emotional problems have themselves to blame	15.8%	1.6[*] (.82)
I believe that young people with emotional problems should be treated like everyone else (R)	15.8%	1.6[*] (.75)
I believe that young people with emotional problems are just as smart (R)	10.6%	1.6[*] (.83)

Stereotype Agreement	Percentage Agreed (%)	Present Study Mean (SD)
Overall (Stereotype Agreement)		20.9 (4.33)

Note:

*
p <.002; Response Set: "Strongly disagree" = 1, "Somewhat disagree" = 2, "Somewhat agree" = 3, "Strongly agree" = 4

Table 3

Linear Regression Table: Shame (Labeling and Symptoms) Association with Psychiatric Symptoms

	A. Anxiety			B. Depression		
	Model 1[1]	Model 2[2]	Model 3[3]	Model 1[4]	Model 2[5]	Model 3[6]
	R^2=.194	R^2=.232	R^2=.394	R^2=.066	R^2=.175	R^2=.190
Step 1						
Shame (Labeling)	.441**	.407*	.335*	.256	.197	.196
Step 2						
Shame (Symptoms)	—	.197	.169	—	.337*	.328†
Step 3						
SIPS Positive	—	—	.126	—	—	−.048
SIPS Negative	—	—	−.291††	—	—	.041
SIPS Disorganization	—	—	−.210	—	—	−.093

Note: SIPS Positive – Total Positive Symptoms, SIPS Negative – Total Negative Symptoms, SIPS Disorganization – Total disorganization symptoms.

**
 p <.01

*
 p <.05

†
 p = .06

††
 p <.10

[1] When adding labeling-related 'emotions (shame)', this variable significantly explained variance for anxiety ($F_{(1, 35)}$=8.45, p=.006)

[2] When adding symptom-related 'emotions (shame)', this block did not predict a significant additional amount of variance (R^2=.038, $F_{(1, 34)}$=1.67, p=.206) for anxiety, and the overall model remained significant (R^2=.232, $F_{(2, 34)}$=5.14, p=.011).

[3] When adding CHR symptomatology, this block predicted a trend additional amount of variance (R^2=.162, $F_{(3, 31)}$=2.76, p=.059) for anxiety, and the overall model remained significant (R^2=.394, $F_{(5, 31)}$=4.03, p=.006).

[4] When adding labeling-related 'emotions (shame)', this variable did not significantly explain variance for depression ($F_{(1, 35)}$=2.45, p=.126)

[5] When adding symptom-related 'emotions (shame)', this block predicted a significant additional amount of variance (R^2=.110, $F_{(1, 34)}$=4.53, p=.041) for depression, and the overall model was significant (R^2=.175, $F_{(2, 34)}$=3.62, p=.038).

[6]When adding CHR symptomatology, this block did not predict a significant additional amount of variance (R^2=.015, $F_{(3, 31)}$=.190, p=.903) for depression, and the overall model was not significant (R^2=.190, $F_{(5, 31)}$=1.46, p=.232).

Table 4

A. Correlations Between Scales – Labeling & Symptoms

Scale	r
Negative Emotions (Label) & Negative Emotions (Symptoms)	.31
Positive Emotions (Label) & Positive Emotions (Symptoms)	.21
Secrecy (Label) & Secrecy (Symptoms)	.09
Discrimination (Label) & Discrimination (Symptoms)	.21
Support (Label) & Support (Symptoms)	.36[*]

B. Mean Comparisons Between Symptom & Labeling Scales

	M (SD)		*M (SD)*	*t, p-value*
Negative Emotions – Shame (Symptom)	7.39 (2.44)	Negative Emotions – Shame (Labeling)	5.18 (1.54)	t(37)=5.14[***]
Discrimination (Symptom)	8.71 (3.78)	Discrimination (Labeling)	6.47 (2.63)	t(37)=3.35[**]
Positive Emotions (Symptom)	8.21 (2.55)	Positive Emotions (Labeling)	12.15 (3.43)	t(37)=−6.56[***]
Secrecy (Symptom)	6.89 (1.41)	Secrecy (Labeling)	7.37 (1.30)	t(37)=1.61
Support (Symptom)	2.92 (1.12)	Support (Labeling)	2.71 (1.23)	t(37)=−.97

[*]
$p < .05$

[**]
$p < .01$

[***]
$p < .001$