THE DEVELOPMENT AND VALIDATION OF A NEW MEASURE OF STIGMA RESISTANCE

by

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ABSTRACT

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STUDY 1: Objective: Stigma resistance is consistently linked with key recovery outcomes, yet theoretical work is limited. This study explored stigma resistance from the perspective of individuals with serious mental illness (SMI). Methods: Twenty-four individuals with SMI who were either peer-service-providers (those with lived experience providing services; n = 14) or consumers of mental health services (n = 10) engaged in semi-structured interviews regarding experiences with stigma, self-stigma, and stigma resistance, including key elements of this process and examples of situations in which they resisted stigma. Results: Stigma resistance is an ongoing, active process that involves using one's experiences, knowledge, and sets of skills at the 1) personal, 2) peer, and 3) public levels. Stigma resistance at the personal level involves a) not believing stigma or catching and challenging stigmatizing thoughts, b) empowering oneself by learning about mental health and recovery, c) maintaining one's recovery and proving stigma wrong, and d) developing a meaningful identity beyond mental illness. Stigma resistance at the peer level involves using one's experiences to help others fight stigma and at the public level, resistance involved a) education, b) challenging stigma, c) disclosing one's lived experience, and d) advocacy work. Discussion: Findings present a more nuanced conceptualization of resisting stigma, grounded in the experiences of people with SMI. Interventions should consider focusing on personal stigma resistance early on and increasing the incorporation of peers into services.

STUDY 2: Background: Despite strong links between stigma resistance and recovery outcomes, limitations of existing measures of stigma resistance have contributed to this construct remaining largely under-studied. This study sought to develop and validate an improved measure of mental illness stigma resistance, grounded in the perspectives of people with lived experience. Method: An item pool was developed from

qualitative interviews (Study 1) and items were piloted in an online MTurk sample with people self-reporting a mental illness diagnosis (*n*=489). Best performing items were selected and preliminary factor structure was examined using exploratory factor analysis in a subset of the sample (30%, *n*=161). The new measure was then administered to individuals at two state mental health consumer recovery conferences (*n*=202) and confirmatory factor analyses were conducted to assess factor structure and refine the measure. Validity of the new scale was then examined through correlations with theoretically relevant measures. Results: The EFA suggested possible models of either 1, 3, or 5 factors. CFA demonstrated that the 5-factor model best fit the remaining MTurk data (*n*=328) and this was replicated in the conference sample; these samples were then combined to refine the measure across a heterogeneous sample (*n*=530). The final 20-item measure demonstrated good internal consistency for the total score (.93) and each of the 5 subscales (.71 - .88), good test-retest reliability (.74), and strong construct validity. Discussion: This study produced an improved measure of stigma resistance with strong psychometric properties and construct validity. Use of this new measure will allow for a more nuanced assessment of stigma resistance across important domains of recovery.

CHAPTER 1

Introduction

Mental illness stigma consists of negative attitudes (i.e., prejudices), beliefs (i.e., stereotypes), and behaviors (i.e., discrimination; Link & Phelan, 2001; Rüsch, Angermeyer, & Corrigan, 2005) towards people with mental illness. Stigma is prevalent, both among the general public and those with mental health training (Kingdon, Sharma, & Hart, 2004; Lyons & Ziviani, 1995; Parcesepe & Cabassa, 2013), is often perpetuated through the media (Chopra & Doody, 2007), and has persisted over the past several decades at a consistent rate (Rüsch et al., 2005; Vahabzadeh, Wittenauer, & Carr, 2011). One consequence of public stigma is the self-stigma that can result among those with mental illness, where negative beliefs and attitudes about symptoms or recovery are internalized (Corrigan & O'Shaughnessy, 2007). In turn, self-stigma can lead to reduced self-efficacy, self-esteem, hope, empowerment, treatment adherence and poorer recovery, as well as greater symptom severity (Corrigan, 2004; Livingston & Boyd, 2010; Lysaker, Roe, Ringer, Gilmore, & Yanos, 2012).

However, public stigma does not always produce self-stigma in those with mental illness. Applying stigma to oneself can depend on the degree to which one is aware of and agrees with stigma, the salience of the stigmatizing condition, and the perceived legitimacy of the stigmatizing content (Corrigan & Watson, 2002; Watson, Corrigan, Larson, & Sells, 2007). Given the relationships between self-stigma and recovery outcomes, calls have been made for a greater understanding of the conditions where individuals resist internalizing the negative attitudes and beliefs associated with stigma

(Thoits, 2011) and that foster individuals' capacity for resistance (Ritsher, Otilingam, & Grajales, 2003; Ritsher & Phelan, 2004).

Previously, stigma resistance has been conceptualized as being unaffected by stigmatizing attitudes (Ritsher & Phelan, 2004), actively challenging or deflecting encounters with stigma (Thoits, 2011), or holding a positive illness identity (Firmin, Luther, Lysaker, Minor, & Salyers, 2016; King et al., 2007). Some studies have also linked coping with stigma as a form of stigma resistance (Thoits & Link, 2015). Stigma resistance was originally assessed using reverse-scored sub-scales of broader self-stigma measures, the "Stigma Resistance" subscale of the Internalized Stigma of Mental Illness Scale (ISMI; Ritsher et al., 2003) and the "Positive Aspects" subscale of the Self-Stigma Scale (SS; King et al., 2007). There has been a recent shift, however, regarding the theoretical model of stigma resistance—suggesting it is more than simply the absense of self-stigma. Indeed, preliminary empirical work also points to stigma resistance being a distinct construct, both in its measurement proprerties (Sibitz et al., 2011) and in the ways it relates to recovery outcomes (Author cite; Campellone, Caponigro, & Kring, 2014; Livingston & Boyd, 2010).

Currently, little work has examined the processes and mechanisms involved in stigma resistance—work needed in order to inform how stigma resistance may be facilitated. To our knowledge, only one publication by Thoits (2011) theoretically examines mental illness stigma resistance, defining it as: "opposition to the imposition of mental illness stereotypes by others and distinguish between deflecting ("that's not me") and challenging resistance strategies". (pp. 13). Thoits (2011)'s theoretical work was an invaluable contribution to the field, as it drew important attention to the process,

integrated existing literature, discussed conditions in which individuals might be most likely to resist stigma, and called for future work to continue understanding this process.

An important gap that remains in the literature, however, is understanding the process of stigma resistance from the perspective of people with serious mental illness (SMI). In this study we analyzed semi-structured interviews to explore the process of stigma resistance with the aim of building a theoretical model grounded in the experiences of people engaged in this process. By using this approach, this study also sheds light on whether Thoits' theoretical propositions regarding stigma emerge naturally from the lived experience of persons with SMI.

Method

Setting and Participants

In order to hear the perspectives of people engaged in stigma resistance, we targeted those in peer-support jobs and those referred by their providers. Twenty-four adults with self-reported serious mental illness participated: 10 were consumers of mental health services and 14 were peer-providers or individuals with lived experience of serious mental illness who provided mental health services. Demographic information is presented in Table 1.

Procedure

We recruited two types of participants who had achieved progress in their recovery and who were actively involved in resisting stigma. First, peer-providers, those with lived experience who also provide mental health services, were recruited through flyers distributed in two community mental health centers in a medium-sized Midwestern

city and posted on an online forum for peer-providers. Second, consumers of mental health services were recruited through referral by mental health providers of those doing well in their recovery and actively resisting stigma. Interviews were conducted between December 2014 and April 2015. All participants engaged in informed consent conversations with a trained Master's-level research assistant (RF) and were paid with a $10 gift-card; study procedures were approved by the institutional IRB board.

Measures

The interviews began by building rapport with the interviewees and asking participants open-ended questions in seven domains. First, participants were asked to broadly share about their (1) experiences with mental health and then (2) public stigma. The interviewer next asked participants about experiences with (3) self-stigma, or the process of internalizing public stigma. Participants were next asked about (4) not internalizing stigma and what this looked like. When appropriate, this was followed up by asking participants to share a specific experience where they did not internalize stigma. Next, participants were asked (5) what came to mind when they heard the term "stigma resistance." After offering thoughts or a definition of this term, participants were then (6) presented with a potential theoretical definition of stigma resistance grounded in previous work (Firmin et al., 2016; Ritsher et al., 2003; Thoits, 2011; Figure 1) and asked for broad feedback as well as which elements of the model seemed the most and least central to their experiences of resisting stigma. Finally, participants were asked to (7) share any additional thoughts they felt were important or wished to share regarding stigma or stigma resistance.

Analyses

Interviews were audio-recorded, transcribed, and de-identified. Interviews were analyzed using a modified-grounded-theory approach (Charmaz, 2006; Firmin, Luther, Lysaker, & Salyers, 2015; Kisely & Kendall, 2011) that involved first applying a process of open coding (Leiva, Rios, & Martínez, 2006), where patterns and themes were identified as they emerged and then refined through an iterative process into focused codes. We employed this method with the aim of creating generalizable themes regarding perceptions of stigma resistance that could produce a theory (Meyrick, 2006). A potential theoretical model of resisting stigma (created by the authors from a summary of existing work by Thoits, 2011; King et al., 2007; Ritsher et al., 2003; Firmin et al., under review) was presented to participants at the end of the interview, but this framework was not used for coding; rather, we began with a line-by-line coding process of identifying recurring themes and codes. We utilized this inductive process, rather than looking to confirm our hypothesized theoretical model, because we wanted the findings to reflect a definition of stigma resistance that emerged from participant perspectives, rather than our own reading of the literature. To help check for researcher biases in coding, themes identified were verified through a consensus process among a researcher familiar (RF) and unfamiliar (MC) with the theoretical model and existing literature. Using the themes generated, participant discussions of stigma resistance were integrated into a conceptual model. Information was organized using Atlas-TI qualitative coding software.

We employed several steps designed to enhance the rigor and internal and external validity of our findings. First, the primary coder held regular meetings with another researcher on the team (MP) with expertise in qualitative research methodology

(Flick, 2008) who supervised steps taken in analyses and enhanced the validity of analyses by conducting data audits and providing feedback regarding how themes, results, and transcripts were linked. Our confidence in these findings was also enhanced through checking for principles of saturation, the point when coding additional transcripts does not contribute novel themes (Guest, Bunce, & Johnson, 2006), which tends to occur between 10 and 20 observations (Kisely & Kendall, 2011). This increased our confidence that findings might be generalizable to a population matching the qualities of our present sample (Meyrick, 2006). As codes emerged, we refined themes and patterns by removing codes no longer supported by the majority of our participants' narratives, adding additional codes that were pertinent but did not emerge early on, combining codes that highly overlapped, and refining codes where the original definition and understanding of constructs referenced by participants shifted. This was done to produce findings that were reflective of the majority of participants in our sample.

Results

Participants discussed resisting stigma at three distinct levels—personal, peer, and public stigma resistance. Personal stigma resistance often provided the foundation for engaging in stigma resistance at the peer and public levels. These three domains served as the overarching framework for our conceptual model of stigma resistance (see Figure 2).

Personal Stigma Resistance

First, participants discussed needing to fight public stigma within their own thoughts and behaviors so that they would not endorse self-stigma. Participants discussed specific mechanisms involved in resisting stigma at the personal level, including: a) not

believing stigma/catching and challenging stigmatizing thoughts, b) empowering one's self through learning about mental illness and one's own recovery, c) maintaining one's own recovery and proving stigma wrong, and d) developing a meaningful identity and purpose beyond one's mental illness.

Not Believing/Catching and Challenging Stigma. Being aware of stigma and intentionally evaluating stigma was discussed as an important first step in resisting stigma, as one participant explained: "[It's] assessing the stigma…not necessarily thinking 'Oh, they're right, I have a mental illness, I can't do this or I'm not capable or not as worthy'…It's not internalizing it--not just accepting what they say. It's facing it. It's evaluating it" (P1). After deliberately considering stigma, some participants described a process of challenging these beliefs and attitudes. This was for some participants an internal process where they countered stigma by discounting or denying it, such as "That's not who I am" (P11).

For other participants, resisting stigma at the personal level was not just denying stigma, but actively refuting it: "With these stigmatic opinions, that's basically telling me that's who I am. And this is not who I am! So therefore, I have to prove who I am to the people. You know, again the stigma of 'they're lazy, they can't think straight, they can't focus'…So, that's like telling me 'no I can't'. Which tells me 'oh yes I can'." Stigma evoked strong internal reactions in participants, particularly when it involved others expressing value judgments or beliefs about limitations that accompany having a mental illness. In the face of stigma, participants reported that not believing these judgments *and* having positive beliefs about oneself was key: "The biggest part in resisting stigma is keeping your own positive mindset about you. It's about what you have accomplished,

it's about knowing who you are. Because there is always going to be some type of stigma out there that gets created…[but] it's not what society thinks I am. I am who I am…some people think that's arrogant, but no; it's assertive…I use those challenges to strengthen me" (P17). Relatedly, participants noted that resisting stigma involved having a secure sense of identity: "I think that to be able to resist that, it's a lot easier to do if you have some sort of a sense of groundedness of where you are and who you are and have some self-empathy" (P10).

Notably, this process of maintaining a positive view of oneself in the face of stigma involved a capacity to identify and differentiate the thoughts of another person as distinct from one's own (i.e., metacognition). Participants repeatedly shared the importance of "not focusing on what other people think, but focusing on what you think about yourself" (P3). Individuals strongly voiced their refusal to let the opinions of someone else make them feel less about themselves and many expressed the importance of knowing that a negative judgment from someone else does not "determine my value as a person. I'm just not going to do that anymore" (P12). Participants also believed the way they viewed themselves had the potential to impact how others saw them. Several participants, such as P3, specifically expressed beliefs that changing stigma started with their own beliefs about herself as a person with a mental illness: "I need to have enough self-worth to say that, you know, I don't care what people say. It's me and I know who I am. You know, for me to be well then I have to know myself, because I am good and I am okay. Honestly, to get anybody else to believe it, I have to believe it myself first."

Empowerment through Learning about One's Own Metal Illness and Recovery. A second important aspect of stigma resistance at the personal level was

educating oneself about mental illness. Participants shared that education was empowering, as it provided them with more tools to make informed decisions about their recovery: "By knowing what my diagnosis was, I could get information, whether that was from the internet, going to the library, contacting NAMI [National Alliance of Mental Illness], wherever, but knowing that empowered me." (P2) Moreover, greater empowerment also took the form of becoming more aware of why stigma is wrong and, thereby feeling more prepared to respond to it and more alert against self-stigma. P15 explained his process of catching and challenging his negative beliefs about himself:

> Because you internalize it without knowing that you're internalizing it. And you feel that about yourself, you feel like you're a bad person, you feel like you're incapable, you feel all these things and you don't even know why you feel them. You haven't come to that awareness so I think in order to be able to resist it, you have to have an awareness that it's happening to you. You have to identify that label that is applied to you, you have to almost claim that label and say, "Yes, that is part of my story but it doesn't define me completely and this is how I want to interact with having that label."

Maintaining one's Recovery and Proving Stigma Wrong. Many participants talked about the link between their mental health and their ability to resist stigma. Some individuals noted that stigma was harder to resist during times when they were not feeling their best: "Because if I don't feel good about myself, then what's the point? I mean, that's the whole point in recovery is to feel good about yourself and that in itself challenges the idea of stigma. Not just to others but to myself that they're not right." (P14) On the positive side, many participants reported that maintaining recovery was one

of the most important steps toward resisting stigma. For example, P13 explained: "Self-stigma leads you to be a victim of stigma. Because it, you're tearing yourself down and you're allowing these things to come in…it's stopping it at that point. It's having a WRAP [recovery] plan…start doing the things that make me feel better about me. And that helps me with my self-stigma and it helps me fight stigma."

Like recovery, stigma resistance was described by participants as a continuous activity, with times where it was easier and times where it was more difficult. Most participants discussed recovery and stigma resistance as having the potential to influence the other, like P11: "If you're helping your mental illness, you're also going to help your stigma. Because if you're helping your mental illness, you're helping who? You're helping yourself. So if you're helping yourself…you're going to have a better outlook about yourself and of who you are." Making strides towards recovery was discussed as a process that had the power to boost confidence and provide content for challenging stigma. The daily work involved in recovery, as P8 shared, was part of what helped him resist stigma: "Living my life every day, being a productive person every day, helps me realize that, you know, the negative stereotypes aren't true. That I can be productive and the people I work with can be productive, too." For many, maintaining recovery was a process that was both empowering and confidence building. While participants understood the up's and down's in the process, they identified that being able to work toward and achieve their goals was evidence—both to themselves and to others—that stigma was wrong:

> [Things that give me a positive view of myself] are exercise, getting sleep, leisure time. Just self-management type stuff. Prayer. Looking at how I was versus how I

> am now. I was working at a job that paid less than $10 an hour versus the job that I work now that pays a lot more…and being able to walk into that place that say that, you know, I no longer work there. To do well is the best revenge.

Developing a Meaningful Identity Beyond Mental Illness. A final aspect of stigma resistance at the personal level involved having a sense of identity that was more than being a person with a mental illness. One participant shared that a "breakthrough" in his life occurred when a caseworker refused to let him apply stigma to himself, and instead challenged the participant to view his identity beyond being a person with a mental illness. For many, this process of discovery could be challenging because of the intensity of public stigma they had encountered both in and out of the mental health system. P13 summarized this struggle shared by many participants: "Everything in your body and your mind is going to be saying do the opposite, but you have to fight against that. And you can fight against that by learning as much as you can about yourself—your true self—and about your illness. Because your illness is a part of you, but it's not who you are." Nearly every participant identified that their mental illness was a part of their life, but just one part of who they are. Stigma resistance was closely tied to having a positive sense of identity—rather than believing stigma or seeing mental illness as their identity. P1 explained:

> And it's just knowing – knowing what you're good at and what you're not good at and realizing that your mental illness doesn't enter into that. And granted that you have to take other steps to maintain your wellness, your recovery. Because you have a mental illness, there are certain things you have to do, but it's not your whole person. It's just part of you, and understanding that and realizing that and

> internalizing that. That you are not – you are not your illness… just knowing that I'm capable and I've done a lot of things in my life before and after my mental illness.

Peer Stigma Resistance

Resisting stigma at the personal level enabled participants to engage in a second step—resisting stigma at the peer-level. This involved using one's lived experiences with both mental illness and fighting stigma to help others resist stigma and make progress toward greater recovery. For several participants who were involved formally as peer-providers, motivation to help others came from the positive influence of another person with lived experience previously had on their own recovery. For other peer-providers, their desire to help came from the lack of peers when they were early in their experience with mental illness and their desire for others to know recovery is possible: "Yeah, I know when I was at my worst, I was looking for somebody who made it. Somebody that actually came over and did it. I couldn't find anybody. Nobody that had gone through it and got better, and that to me was devastating." (13) Similarly, P4 shared: "I'm less likely to internalize stigma [now] because there are people that are at different level[s] than I am, and I may have been at that level at a previous time. So I wish there would have been other people there at that time to have stepped up for me and to educate others when I couldn't." (P4)

Several participants expressed that helping others with mental illness, both informally and through peer-service involvement, was motivated by seeing first-hand the powerful negative influence stigma could have. Their desire to help others, then, was a response that they hoped could have an equally meaningful impact on the lives of others

with mental illness and on the fight against stigma. P6 articulated sentiments shared by many participants who discussed the relationship between stigma they experienced and their desire to be involved in helping peers:

> I don't want you walking away thinking we have arrived…I still deal with self-stigma daily…what keeps coming to my mind is stigma steals hope…whether it's self-inflicted or if it's internal or external…I think collectively [we have] accumulated some tools [so] that it doesn't have to steal our hope today, that's part of the battle…it's about educating my culture about mental illness, educating my community…like I said, I'm a certified recovery specialist, I love what I do. Because I think the only way to help and address stigma for real is to give them the power from within.

Participants who were formally involved as peer-providers all discussed the powerful ways this role contributed to combatting stigma among those they worked with. Resisting stigma at the peer level involved helping others with mental illness challenge stigma beliefs or attitudes about whether or not they could achieve recovery and meet their goals, as well as discussing stigma and self-stigma.

Participants who were not formal peer-providers empathized and expressed a desire to support others. For example, when offering advice he shared with someone newly diagnosed with a mental illness, P13 stated: "Eventually somebody on the news is going to say something that is stigmatizing. But if you know people in your life who are doing well, who are moving beyond it, at least I'm moving with it, it's not having me stop right here…you can have that positive to go with the negative." Many participants stressed the importance of a support system in resisting stigma: "Experiencing stigma can

be very triggering emotionally and you need to have those supports in place in order to be able to resist it" (P15). Participants also expressed their desire to help provide a safe space for others to process stigma, understanding how difficult resistance can be, as highlighted by P8:

> [I want to] let them know that it's ok…that people just don't understand us…who we are, what we're capable of…allowing them to talk about it because a lot of people don't allow you to talk about that stuff. They tell you you're being silly or 'Oh, that's now what they meant,'…and cut you off because they're unconformable talking about it.

Participants also communicated that the process of helping peers is mutually beneficial to their own recovery and stigma resistance. Some who were not formal peer-providers discussed a deep connection they felt with others with shared lived experience. P2, for example, discussed valuing friends with lived experience and the ways they were able to be there for each other: "The more I learn about myself and everything [the more] I find friends that [have] bipolar and OCD. They have, you know, their quirks and what not and, you know, it's just easier to relate to [them]. It's easier to talk." Participants involved in providing formal peer services also related this involvement as beneficial to their own recovery through regular exposure to recovery-oriented curriculum, teaching skills, and actively helping others resist stigma. Accountability was another result of using one's lived experience to help others resist stigma. P8 summarized:

> I keep trying to improve my life and I try to find new things to help me improve my life all the time. And I try to transmit those to other people. And my role in this job is educator and role model. The – the scariest thing I think when I first

> realized that, you know, we do model behavior for other clients. In my group, a lady was saying one day she was in a situation she didn't know what to do and she thought to herself, what would [Peer-provider] do in this situation? I thought, boy that's a scary thought…A big compliment. I never thought of people thinking that way, but you know, they do. They do take what you say seriously. Because you've been there.

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Discussion

This study investigated stigma resistance from the perspective of people with serious mental illness. Stigma resistance is a process of using skills, knowledge, and experiences and occurs at the personal, peer, and public levels. The levels appear relatively sequential, resisting personal stigma often appeared to be a pre-requisite that facilitated resisting stigma at the peer and public levels. Moreover, participants also discussed stigma resistance as an ongoing process, rather than something at which they "arrive" – akin to current conceptualizations of recovery (Davidson et al., 2005; Davidson & Roe, 2007). Although past research suggests that stigma resistance is a key element of recovery (Firmin et al., 2016), the theoretical framework to understand this process was crafted from an expert perspective but lacking the perspective of the targets

of this theory. The current findings, therefore, fill an important gap and provide guidance regarding future work that seeks to understand and facilitate stigma resistance.

Participant discussions of stigma resistance revealed several factors that appear key to this process. One factor was having a sense of identity that extended beyond being a person with a mental illness. This is consistent with previous discussions (Davidson & Strauss, 1992) on the important role of one's sense of self in recovery. Another important factor that may be a prerequisite for resisting stigma is having the metacognitive capacity to differentiate stigmatizing attitudes and beliefs of others from one's own thoughts and identity (Nabors et al., 2014; Firmin, Luther, Salyers, & Lysaker, under review). It may also be that a certain degree of empowerment is necessary for individuals to feel capable or interested in resisting stigma beyond the personal level. Others have discussed one's sense of empowerment as central to resisting stigma (Campellone et al., 2014), and it may be that education about mental illness and recovery or particular supports (e.g., social support, employment security) are factors that would promote greater capacity for stigma resistance at the peer or public level.

Existing theoretical work by Thoits (2011) asserted that stigma resistance involves deflecting and challenging stigma. Thoits' discussion of blocking the internalization of stigma at a personal level and challenging at a public level were consistent in many ways with perspectives our participants discussed. For example, both Thoits and our participants discussed identifying when one does not fit a stereotype and that mental illness is not one's entire identity. However, in contrast to Thoits' model, which presents deflection as a primarily cognitive strategy, participants in our study discussed stigma resistance at the personal level to involve additional strategies and

components (e.g., education, maintaining one's recovery, taking steps to develop a more meaningful sense of identity and purpose). We also note that, when presented with Figure 1, participants either were unsure what "deflection" meant regarding stigma resistance or they did not care for this term, assuming it meant taking a more passive response to stigma (e.g, changing the subject). We believe the current findings grounded in participant responses build on the work by Thoits, confirming many aspects of this theoretical work, and extend our understanding of the cognitive processes involved (i.e., catching and checking one's cognitive processes), as well as illuminating novel factors involved (i.e., metacogition). Moreover, while Thoits discusses resisting stigma occurring at the personal level (e.g., deflecting) and public level (e.g., challenging), the present findings suggest that an additional component of stigma resistance occurs at the peer level, for both peer-providers and non-peer providers.

This study also built on past work regarding self-stigma and recovery. Self-stigma has been discussed as the process of first being aware of public stigma and then agreeing with it and applying it to oneself (Corrigan & Watson, 2002). Participants in our study similarly noted that being aware of stigma and then evaluating it were important requirements for personal stigma resistance. Further, both self-stigma and stigma resistance have consistently been linked with key recovery outcomes (Livingston & Boyd, 2010; Firmin et al., 2016); participant discussions of maintaining their own recovery to "prove stigma wrong" may illuminate part of the link between stigma resistance and lower symptoms and greater functioning. Further, maintaining a positive identity and being active in response to stigma may contribute to links seen between stigma resistance and reductions in negative symptoms (Campellone et al., 2014; Firmin

et al., 2016). The present findings also build evidence that, more than being just the absence of self-stigma, stigma resistance is an active, multi-faceted and ongoing process.

These results should be interpreted in light of its limitations. First, we actively recruited peer providers since we believed they would be likely to be resisting stigma through using their mental illness to help others as well as others referred to us as consumers involved in resisting stigma. Given the paucity of existing work in this area, we felt this population would allow us to conduct preliminary work regarding perspectives from those actively engaged in resisting stigma. The perspectives shared by our participants, however, may not generalize to participants who are not engaged in treatment, deny having a mental illness, or who are newer to experiences with mental illness. Future work should seek to replicate the current findings in additional samples, particularly to understand how resisting stigma may differ between various groups. Second, we recruited both peer-providers (n=14) and consumers of services (n=10), but did not have large enough samples to comfortably assess differences between these groups. It is possible that peer-providers have additional protective factors that facilitate resisting stigma, such as potentially safer contexts for disclosure or challenging stigma in the workplace, given the nature of their job.

The current findings also have potential implications for interventions that target and facilitate stigma resistance. Several existing interventions that aim to lessen self-stigma target aspects of stigma resistance that were shared by our participants, such as the importance of education (Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012; Pinfold et al., 2003), catching/challenging stigma at the cognitive level (Lucksted et al., 2011; Yanos, Roe, West, Smith, & Lysaker, 2012), developing a richer sense of identity

(Yanos, Roe, & Lysaker, 2011), and sharing one's story (Corrigan, Kosyluk, & Rüsch, 2013). The model put forth in this paper could suggest that facilitating stigma resistance may involve integrating aspects of existing self-stigma interventions to target specific processes involved in stigma resistance. For instance, it may be that particular interventions more effectively promote stigma resistance at the personal level (e.g., education, metacognition, CBT) and other interventions target stages of stigma resistance that come subsequently at the peer and public levels (e.g., disclosing one's illness). For example, it may be necessary for individuals to have the capacity to differentiate their own thoughts and sense of self from the thoughts of others before they are able to engage in directly confronting or challenging stigma, suggesting that it may be helpful to develop one's metacognitive capacity prior to engaging in interventions that target specific cognitions (Nabors et al., 2014). The current findings also support and provide indirect evidence for the benefits of greater involvement of peers in providing services, and is consistent with past work strongly supporting the effectiveness and benefits of peer-providers (Davidson, Bellamy, Guy, & Miller, 2012) and of the helpfulness of peer-related helping behaviors in non-formal roles in fostering a greater sense of recovery and empowerment (Firmin et al., 2015).

CHAPTER 2

Introduction

Mental illness stigma consists of negative attitudes, beliefs, and actions toward those with mental illness (Link & Phelan, 2001; Wahl, 2012), which frequently leads to negative experiences for people with lived experience of mental illness (Corrigan, 2007). Given the high prevalence of public stigma (Corrigan, 2004; Lyons & Ziviani, 1995), an additional challenge for people with lived experience is self-stigma—the awareness of public stigma, agreement with these attitudes, and application of these beliefs to oneself (e.g., "I'll never get better", "I can't hold a job"; Corrigan & Rao, 2012). Self-stigma has been linked to poorer recovery outcomes across key domains such as quality of life, symptoms, and hope (Livingston & Boyd, 2010; Ritsher et al., 2003), and found to significantly moderate the relationship between insight into one's illness and one's social functioning, hope, and self-esteem (Lysaker, Roe, & Yanos, 2007).

However, not everyone with lived experience of mental illness internalizes stigma. Recent attention has turned to the importance of understanding the conditions in which someone is more or less likely to apply stigma to themselves (Thoits, 2011). Stigma resistance, broadly and initially understood as the process of not internalizing stigma, has been strongly linked to increased quality of life, self-efficacy, hope, recovery attitudes, insight into one's illness, and decreased symptoms and self-stigma (Firmin et al., 2016). Moreover, a qualitative investigation of stigma resistance from the perspective of people with lived experience pointed to stigma resistance being an active, ongoing

process of using one's skills, knowledge, and experiences to fight stigma at the personal, peer, and public levels (Firmin et al, under review).

Stigma resistance has primarily been measured using the 5-item Stigma Resistance subscale of the Internalized Stigma of Mental Illness Scale (ISMIS; Ritsher et al., 2003). This measure was designed to provide reverse-scored, positively-worded items to the measure of self-stigma to represent being unaffected by stigmatizing attitudes (Ritsher & Phelan, 2004). This subscale, however, has demonstrated variable to poor internal consistency, which has led to its exclusion in some studies. In a recent meta-analysis of 45 studies, the average Cronbach's alpha for the Stigma Resistance subscale was .56 (Firmin et al., 2016). A second measure that assesses a closely related construct (having a positive illness identity) is the Positive Aspects subscale of the Stigma Scale (King et al., 2007), a 5-item subscale that includes several items similarly worded to the Stigma Resistance subscale of the ISMIS ("Having had mental health problems has made me a stronger person"). From a recent review of stigma resistance, the Positive Aspects subscale is less widely used (k=3) and the average reliability has demonstrated room for improvement (.64; Firmin et al., 2016).

Although the construct of stigma resistance is linked to key recovery outcomes, and is frequently the target of calls for additional research (Nabors et al., 2014; Sibitz, Unger, Woppmann, Zidek, & Amering, 2011; Thoits, 2011), it remains frequently under-studied due to limitations in current measurement tools. Additionally, the two extant measures may be limited in how fully they reflect the construct of stigma resistance. Past theoretical work by Thotis (2011) and recent work establishing a model of stigma resistance grounded in the perspectives of people engaged in this process (Firmin et al.,

under review) both conceptualize stigma resistance as a multi-faceted process that may not be fully captured by either of these subscales. Thus, to address the psychometric and construct-validity issues that accompany the current measurement tools, we sought to validate a new measure of stigma resistance. Our aims were to produce a measure with (1) strong psychometric properties and (2) that reflects the multi-faceted conceptualization of stigma resistance grounded in the perspective of people with lived experience (i.e., a process that occurs at the personal, peer, and public levels). We utilized previous qualitative interviews with people with lived experience regarding stigma resistance (Study1; Firmin et al., under review) to generate potential items and refine a new measure through validation in two samples of people who self-report having lived experience with mental illness.

Method

For an overview of the study methods, see Figure 1.

Participants and Procedure: Part 1

A pool of 54 items was piloted in Amazon's MTurk survey platform with individuals who identified has having lived experience with mental illness. Eligibility criteria included being at least 18 years old, speaking English, and reporting a mental health diagnosis. Participants were paid $0.50. Ten attention-check items were also included to screen poor quality or inattentive responding. To incentivize careful responding, participants were given the opportunity to earn an additional $0.25 compensation bonus for providing quality responses (correctly answering at least six out of ten attention-check items). Participants could skip any questions they did not wish to

answer. Prior to completing the survey, participants were provided a study information sheet and contact information for the researcher; procedures were approved by the university IRB.

A total of 534 individuals participated in the on-line survey on MTurk. Of those, 31 were removed for answering fewer than 6 attention-check items correctly (e.g., "At times when I was ill or tired, I have felt like going to bed"). One participant was removed for indicating age less than 18 years old. Thirteen participants were removed because they attempted to participate more than once. In most cases, participants started the survey, but only provided data once (that entry was retained). In the one case where a participant completed the survey more than once, the earliest responses were retained. The final MTurk sample was 489 adults.

Participants and Procedure: Part 2

After conducting the online pilot, 26 of the best performing items were selected (criteria discussed below) and administered in person to participants at one of two state-wide annual conferences for people with lived experience with mental illness: the KEY Consumer Conference in Indianapolis, IN (*n*=96) and the Kansas Recovery Conference in Wichita, KS (*n*=106). Eligibility criteria included being at least 18 years old, speaking English, and reporting a mental health diagnosis. Both conferences provided space for a researcher to set up a table in a general foyer area where conference attendees could talk with the research assistant and were provided with study information; those who wished to participate were given a survey packet to complete and return before the end of the conference (one day for the KEY Conference and two days for the KS Conference). Participants also had the option to complete the survey with individual assistance by a

researcher. A $10 gift-card was provided to participants for completing any part of the survey. For participants at the KS Conference, the opportunity to complete a test-retest validation phase was also offered. If interested, participants provided their contact information (separate from their original data, linked in a secure file by ID number). Two weeks after the conference, participants received a copy of the stigma resistance scale and a pre-addressed, postage-paid envelope. Sixty-four re-test surveys were mailed and 45 surveys were returned (all surveys were returned within 3 weeks of being mailed); participants who returned surveys were mailed (or emailed) an additional $10 gift-card for participation in the re-test phase. All procedures for were approved by university IRB.

Measures

Participants first provided their age, gender, race, education level, employment status (hours currently employed if working), marital status, and mental health diagnoses. Then we assessed constructs we hypothesized would assess content validity (i.e., the old measures of stigma resistance). We finally assessed criterion validity by examining relationships with outcomes previously linked to stigma resistance.

Stigma Resistance. The new measure of stigma resistance was examined and compared to the old measure of stigma resistance, the 5-item subscale of the Internalized Stigma of Mental Illness Scale (ISMI; Ritsher et al., 2003). The Stigma Resistance subscale of the ISMIS has previously been shown to have variable reliability (Firmin et al., 2016); this was also the case in the current study (MTurk sample alpha =.66, Conference sample alpha=.81).

Positive Aspects of Mental Illness. A 5-item subscale of the Stigma Scale (King et al., 2007) was used to assess positive aspects of having a mental illness. These items

are reverse-scored and reflect the degree to which one holds a positive illness identity. This subscale was only administered to the conference sample (omitted from the MTurk battery by mistake) and the reliability was adequate (.66).

Self-Stigma. The Internalized Stigma of Mental Illness Scale (ISMIS) was used to assess self-stigma (Ritsher, et al., 2003), with higher scores indicating greater self-stigma. Similar to others (Hasson-Ohayon et al., 2014; Sibitz et al., 2011), we excluded the Stigma Resistance subscale for the total score. We calculated a total-score using a mean of the remaining four subscales. The ISMIS demonstrated good reliability for the total score (.95 in MTurk and Conference samples) and remaining subscales (Alienation=.87, .90; Stereotype Endorsement=.87, .90; Discrimination Experience=.89, .89; Social Withdrawal=.90, .88).

Perceived Public Stigma. The 12-item Perceived Devaluation Discrimination Questionnaire (PDD) scale was used to assess perceptions of public stigma, with higher scores indicating greater perceived stigma (Link, 1987). This scale asks participants the degree to which they perceive one may experience negative consequences as a result of having lived experience with mental illness. Reliability was adequate in both samples (MTurk=.88, Conference=.82).

Fear of Negative Evaluation. We used the 12-item version of the Brief Fear of Negative Evaluation-Revised (Carleton, McCreary, Norton, & Asmundson, 2006; Leary, 1987), which has been validated and widely used in samples with mental health diagnoses, particularly anxiety and depression (Rodebaugh et al., 2004) and demonstrated strong reliability in our samples (MTurk=.97, Conference=.96). Higher scores on this measure indicate greater fear of negative evaluation from others.

Recovery Assessment Scale. We measured perceptions of global recovery using a brief, 20-item version of the Recovery Assessment Scale (RAS; Corrigan, Giffort, Rashid, Leary, & Okeke, 1999; Corrigan, Salzer, Ralph, Sangster, & Keck, 2004). The brief version of the RAS has been used previously in samples of people with serious mental illness to assess attitudes and beliefs about recovery and one's ability to make progress toward life goals (Luther et al., 2015). Higher scores reflect more positive recovery attitudes, and the total score reliability was good for both samples (Mturk=.89, Conference=.95).

Quality of Life. We used an abbreviated version of the World Health Organization Quality of Life (WHOQOL-BREF; Skevington, Lotfy, & O'Connell, 2004) that has been widely used in mental health samples and linked with greater stigma resistance (Luther et al., in press; Sibitz et al., 2011). Each item asks about subjective satisfaction regarding a life domain (e.g., physical health, social relationships) as well as overall life satisfaction. Higher mean scores reflect greater self-reported quality of life. The scale demonstrated good reliability in both samples (.93).

Overall Symptoms. The Colorado Symptom Inventory was used as a self-report measure of overall psychiatric symptoms. This 14-item measure has been widely used in diverse samples of persons with mental illness (Conrad et al., 2001; Piland, Motl, Ferrara, & Peterson, 2003) and captures a range of symptoms, including psychotic symptoms and mood symptoms. A total score reflected greater self-reported psychiatric symptoms; the scale demonstrated good reliability in both samples (MTurk=.89, Conference=.93).

Depression. To assess depressive symptoms independent from overall symptoms, we used the PHQ-9 (Kroenke & Spitzer, 2002), a brief self-report instrument comprised

of 9 items that ask about symptoms of depression experienced over the past two weeks. Reliability was good using mean scores in both samples (MTurk=.89, Conference=.91).

Defeatist Beliefs. We used the 15-item defeats performance attitudes subscale of the Dysfunctional Attitude Scale (DAS; Cane, Olinger, Gotlib, & Kuiper, 1986; Weissman & Beck, 1978) to assess how participants believe they perform most of the time (e.g., "If I fail, it is as bad as being a complete failure"). Higher scores indicate greater defeatist beliefs. We used a total score of the abbreviated DAS that demonstrated good reliability in both samples (MTurk=.93, Conference=.92).

Self-Efficacy. The Self-Efficacy Scale (Schwarzer, Bäßler, Kwiatek, Schröder, & Zhang, 1997) was used to assess beliefs about general self-efficacy. Participants respond to 10 statements that reflect optimistic self-beliefs (e.g., I can usually handle whatever comes my way") and indicate how much they believe the statements are true or not true. Higher scores reflect greater perceived self-efficacy, and good reliability was observed in both samples (MTurk=.89, Conference=.92). This measure has been used in diverse mental health samples and in studies assessing stigma (Kleim et al., 2008; Schwarzer et al., 1997).

Analyses

Analyses were conducted in several steps (see Figure 1). First, data was screened for normality and outliers (study variables fell within acceptable ranges using Kline's 2011 guidelines). Next, in a randomly selected subsample (n=161), descriptive statistics were run to report means and standard deviations for each variable and initial item-performance on the new stigma resistance items was then assessed for each item in the initial pool. Poor-performing items were removed using the following criteria: (1) floor

or ceiling effects (defined by less than 5% of responses or more than 80% endorsed the highest or lowest category; Monahan, Lane, Hayes, McHorney, & Marrero, 2009), (2) low factor loadings, or (3) low item-total correlations. Similarly worded items or items that assessed similar domains were compared and the better performing items were retained. Because the measure was designed using a 3-factor theoretical framework (Study 1; Firmin et al., under review) items retained also reflected the three theoretical domains fairly evenly. A sub-set of items were selected as the preliminary measure.

Next, exploratory factor analysis was conducted to examine the potential factor structure of the preliminary stigma resistance measure. Possible models generated (based on eigenvalues and scree plots) were used to determine potential factor loadings. Eigenvalues greater than 1 were considered (Jolliffe, 2002).

A series of CFAs were then conducted in the remaining MTurk sample and independently in the conference sample, testing the potential models suggested by the EFA. The following guidelines were used to assess model fit: (1) standardized root mean square residual (SRMR) < .08 was acceptable and <.05 good; (2) root mean square error of approximation (RMSEA) <.08 was acceptable and <.05 good; and (3) comparative fit indices (CFI) >.90 were acceptable and <.95 were considered good (Browne & Cudeck, 1992; Hu & Bentler, 1999). Next, in order to further refine the measure across a heterogeneous sample, we combined the MTurk data not examined in the EFA (n=328) and the conference sample (n=202). Using the combined data (n=530), the CFA model with the strongest support in both the MTurk sample (30%) and the clinical sample was replicated. Item performance was then assessed and similar items removed to produce a parsimonious final measure with strong model fit.

Internal reliability of the final scale was then calculated for the total scale and each factor. For a sub-set of the conference sample, test-retest reliability was also assessed using Pearson's bivariate correlations. Finally, construct validity was assessed by conducting bivariate correlations between the new SR measure total, subscales, and each recovery-related domain assessed.

We hypothesized that the items would produce a measure of stigma resistance that would be reliable and multi-faceted (i.e., have at least 3 factors). We tested content validity, expecting that the new measure would significantly, positively correlate with the old Stigma Resistance subscale of the ISMIS and the Positive Aspects subscale of the Stigma Scale. In testing criterion validity, we hypothesized the new scale would have positive associations with recovery attitudes, quality of life, and self-efficacy and have negative associations with self-stigma, perceived public stigma, fear of negative evaluation, symptoms, and defeatist beliefs. Finally, we conducted exploratory analyses to assess potential relationships between stigma resistance and demographic variables. Analyses were conducted using SPSS version 22 and Mplus.

Results

Sample Characteristics

In the MTurk phase of recruitment, 489 adults provided usable data used for our analyses. Participants were primarily White (*n*=435, 85.8%), female (*n*=362, 71.4%), employed (*n*=328, 64.7%; average hours=36.3, S.D.=10.5), and the mean age was 33.5 (S.D.=11.2). The most commonly reported mental health diagnoses included: depression (39.3%), anxiety (26.4%), Bipolar disorder (8.5%), ADHD (6.1%), and PTSD (5.9%). A subset of the sample (*n*=161) was randomly selected for conducting preliminary statistics

on the item pool and no significant differences existed between the subsample and the remaining MTurk data on background variables. The second phase of recruitment occurred at two consumer conferences (*n*=202). Sample characteristics are listed in Table 1. In a final stage of measure refinement, the conference data and the remaining MTurk data were combined to create a sample of 530 participants with diverse mental health diagnoses. Characteristics of the combined sample, along with significant differences between the MTurk and conference subsamples, are presented in Table 1. As compared to the MTurk participants, conference participants were significantly older, had less education, were more likely to be employed, and were less likely to have been married. Anxiety and depression diagnoses were more common among MTurk participants, whereas bipolar disorder and schizophrenia-spectrum disorder diagnoses were more common among conference participants.

Item Selection and Preliminary Factor Structure

The initial item pool was comprised of 54 items, which were administered to an online sample using MTurk. A random subsample (30%, *n*=161) was selected for examining initial item performance. Items were removed when participants provided a restricted range of responses (i.e., some response anchors were never selected; 3 items removed) or when low item-total correlations were observed (11 items were removed for correlations <.40). The remaining items were grouped by theoretical domain and items with similar wording were compared. Ms. Firmin and Dr. Salyers selected 26 of the best performing items that were representative of the theoretical domains (e.g., personal, peer, and public stigma resistance) on which the scale was initially developed (see Table 2 for initial item performance). The preliminary factor structure and reliability of the 26 items

was then examined. An EFA revealed that several potential factor structures could be statistically appropriate (see Table 3 for Eigen values and Figure 2 for the Scree Plot loading). Taking these results with the qualitatively-developed theory (3-factor model), we decided to examine several models in subsequent CFAs (i.e., unidimensional, 3-factor, and 5-factor modes). In this subsample of the MTurk participants, the Cronbach's alpha for the preliminary 26 items was .92.

Confirmatory Factor Analyses and Measure Refinement

The preliminary 26-item measure was then administered to 202 conference participants. CFAs were conducted in both the conference data and the unexamined MTurk data (n=328). In both samples, unidimensional, 3-factor, and 5-factor models were tested. As shown in Table 4, fit indices indicated that 5-factor models demonstrated the strongest fit in the MTurk data (SRMR=0.07, RMSEA=0.08, CFI=0.85, $\chi^2(299)=1330.1$, $p<0.001$) and in the conference data (SRMR=0.06, RMSEA=0.09, CFI=0.86 $\chi^2(289)=723.4$, $p<0.001$). To further refine the measure, the samples in which independent CFAs were conducted were combined for a total sample of 530 participants, reflecting a heterogeneous sample with a diverse range of mental health diagnoses. Using all 26 items, a new CFA confirmed that a 5-factor model demonstrated good fit in the combined sample (SRMR=0.05, RMSEA=0.07, CFI=0.91, $\chi^2(289)=938.6$, $p=0.001$). Item performance in the combined sample for all 26 items is listed in Table 5.

In order to produce a parsimonious measure with strong psychometric properties, we examined item performance of the 26 items (see Tables 5 and 6). First, items 23-26 were removed because they were conceptually less similar to other items in their factor grouping and were not central to the theoretical model of stigma resistance. Next, two

items were removed (items 11 and 18) for having poorer performance compared to similarly worded items in the same factor. Table 4 lists comparisons of model fit indices with items removed. The final scale demonstrated strong fit (SRMR=0.04, RMSEA=0.06, CFI=0.94, $\chi^2(160)=484.6$, $p=0.001$) and consists of 20 items organized into 5 factors.

As illustrated in Figure 3, the five factors reflect five domains of stigma resistance: (1) personal metacognition, (2) personal identity, (3) personal cognitions, (4) peer stigma resistance, and (5) public stigma resistance. Three items comprise personal metacognition (see Figure 3) reflecting one's ability to differentiate the thoughts of others from one's own perspective and set boundaries around the impact stigma attitudes of others have on one's view of oneself. The personal identity factor is comprised of four items that reflect positive beliefs about one's sense of purpose and a meaningful sense of identity beyond being a person with a mental illness. The third factor consists of three items regarding cognitive strategies employed to resist stigma. The fourth factor, peer stigma resistance, consists of 5 items that tap into the degree to which one is involved in or motivated to help others with mental illness (i.e., "peers") resist stigma. Public stigma resistance, the final factor, includes 5 items assessing the degree to which one is involved in addressing stigma in public arenas, including personal disclosures, confronting stigma in public settings, or education and advocacy work.

Measure Reliability

The reliability of the final 20-item measure and the 5 subscales was next examined. The Cronbach's alpha for the total measure was excellent (α=.93). Each of the subscales also demonstrated acceptable to good reliability: Personal Metacognition=.71,

Personal Identity=.85, Personal Cognitions=.82, Peer=.75, Public=.88. Participants at the Kansas Recovery Conference were also offered the opportunity to complete a test-retest phase of the study and 45 surveys were returned. The overall scale was examined and the new 20-item measure was reliable within a 3 week period with a test-retest correlation = .74.

Construct Validity

Finally, to assess the construct validity of the 20-item Stigma Resistance Scale, the total score and subscale scores were analyzed for associations with related constructs (content validity) and recovery-related domains (criterion validity; see Table 7). The total Stigma Resistance Scale score was associated with each construct assessed at the $p<.001$ level. First, the new Stigma Resistance Scale was related to 3 measures similar constructs: positive aspects of having a mental health diagnosis (r =.47), the stigma resistance subscale of the ISMIS (r=.16) and negatively related to the ISMIS (r=-.39). Additional significant relationships include a positive association with self-efficacy, recovery attitudes, and quality of life, as well as negative associations with perceived public stigma, fear of negative evaluation, symptoms, depression, and defeatist beliefs. At the subscale level, personal-level stigma resistance factors also demonstrated construct validity with significant correlations in meaningful domains. Notably, greater personal metacognition was associated with lower fear of negative evaluation (r=-.20), greater personal identity was associated with greater recovery attitudes and self-efficacy (r=42 and .54), the personal cognition was associated with lower defeatist performance beliefs (r=-.44).

Exploratory Analyses

Finally, exploratory associations between stigma resistance and participant background variables were examined. All associations were small (see Table 8). The strongest associations were between stigma resistance and greater participant age (stigma resistance total r=.17, p<.001) and fewer hours employed (r=-.24, p<.001).

Discussion

The purpose of this study was to develop and validate a reliable and valid measure of stigma resistance. This construct has been understudied, due largely to limitations of existing subscales (Firmin et al., 2016). The current study used qualitative interviews with people with lived experience with mental illness to develop an item pool, and then systematically tested reliability and validity, and refined the measure. The new Stigma Resistance Scale was validated in multiple samples of people reporting mental health diagnoses and the final measure has strong reliability (Cronbach's alpha=.93, test-retest=.74) and construct validity. The final 20-item measure demonstrated a 5-factor structure, reflecting distinct, but related, domains of resisting stigma: (1) personal metacognition, (2) personal identity, (3) personal cognitions, (4) peer stigma resistance, and (5) public stigma resistance. Each subscale also demonstrated strong internal consistency (.72-.88). Previous literature has established stigma resistance as a multifaceted process (Thotis, 2011; Firmin et al., under review), and an important contribution of this new measures is the theoretical grounding in lived experience of people with mental illness and the potential to assess multiple facets of stigma resistance.

The Stigma Resistance Scale demonstrated moderate to strong construct validity, significantly associated in the expected direction with each hypothesized construct. The

strongest associations (moderate to large effect sizes) were observed between stigma resistance and self-efficacy (r=.54), defeatist beliefs (r=-.47), seeing the positive aspects of mental illness (r=.47), and lower depressive symptoms (r=-.42). The magnitude of associations observed in this study are consistent with effect sizes reported in a recent meta-analysis of psychiatric and psychosocial outcomes and the stigma resistance subscale of the ISMIS (Firmin et al., 2016). While additional research is needed to confirm these associations, our initial findings suggest the Stigma Resistance Scale reflects a construct that is central to several key aspects of recovery.

The new Stigma Resistance Scale appears to improve upon the stigma resistance subscale of the ISMIS in several ways. First, the internal consistency of the new measure's total scale (.93) and subscales (.72-.88) demonstrate improvement compared to the internal consistency of the ISMIS subscale in this study (MTurk sample alpha=.66, Conference sample alpha=.81) and in prior studies (which ranged from .03 - .76; Firmin et al., 2016; Ritsher et al., 2003; Ritsher & Phelan, 2004). Furthermore, the new Stigma Resistance Scale assesses multiple domains of stigma resistance. This conceptualization of the construct was critical given the previous theoretical work and qualitative findings from people with lived experience resisting mental illness stigma (Thoits, 2011; Firmin et al., under review).

However, the association between the ISMIS subscale of stigma resistance and the new Stigma Resistance Scale was smaller than expected (r=.16, p<.001). The stigma resistance subscale of the ISMIS had stronger associations with the Peer (r=.18, p<.001) and Public subscales (r =.16, p<.001) of the new Stigma Resistance Scale, but demonstrated smaller associations with the Personal Identity (r=.08, p<.10) and Personal

Cognitions (r=.09, p<.05) factors. While the two measures relate to many outcome constructs in similar ways, such as perceived discrimination measure (new measure=-.17, p <.001; ISMIS subscale =-.19, p<.01), there were also several domains where associations differed, including self-stigma (new measure =-.39, p<.001; ISMIS subscale =-.10, p<.05), self-efficacy (new measure =.54, p<.001; ISMIS subscale =.05, p=n.s.), quality of life (new measure=.38, p<.001; ISMIS subscale = .10, p=n.s.), and defeatist beliefs (new measure=-.47, p<.001; ISMIS subscale =-.11, p<.05). One domain that is not part of the new Stigma Resistance Scale, but is covered by two of the five items in the ISMIS subscale, is that of public stigma beliefs (e.g., "I feel comfortable being seen in public with an obviously mentally ill person" and "People with mental illness make important contributions to society"; See Table 9 for all 5 items). In the qualitative interviews we used for generating the new Stigma Resistance Scale items, participants were not endorsing public stigma; however, other aspects of stigma resistance were more central to their experiences. Thus, we did not include items on public stigma, given the strong existing measures available (Link, Yang, Phelan, & Collins, 2004). This difference in measurement focus, in combination with the lower reliability of the ISMIS subscale, may be contributing to the lower than expected correlation between the two scales of stigma resistance. Overall, it appears the two measures relate to outcomes in the same direction and may assess overlapping, yet distinct, aspects of the multi-faceted construct of stigma resistance.

The Stigma Resistance Scale was developed using qualitative interviews and a conceptual model of stigma resistance as a three-faceted process involving (1) Personal stigma resistance, (2) Peer stigma resistance, and (3) Public stigma resistance ([Study 1]

Firmin et al, under review). Accordingly, we explored whether a 3-factor model of the new measure of stigma resistance fit the data; however, a 5-factor model, initially suggested by the EFA and confirmed through CFA, consistently outperformed the 3-factor model in the MTurk and conference samples. Two domains of stigma resistance from the qualitative study (i.e., Peer and Public) are directly reflected in the factor structure. The third domain, the Personal aspect of stigma resistance, appears better structured as having 3 subcomponents: Personal metacognition, Personal identity, and Personal cognitions. Thus, while the final scale reflects 5-factors, we believe it remains consistent with the broad domains of the 3-factor model of stigma resistance on which it was developed.

This study has several limitations highlighting areas for future work. First, the MTurk and conference participants were primarily White and female; more diverse samples are needed for replication. Using the ISMIS subscale of stigma resistance in prior studies, stigma resistance had stronger associations with greater functioning and hope and lower self-stigma and mood symptoms for White participants, suggesting potential compounding effects of multiple forms of disadvantage (Firmin et al., 2016; Gary, 2005), and additional work is needed to assess these factors using a multidimensional assessment tool of stigma resistance to see whether stigma resistance differs for individuals who belong to minority groups. Second, self-report was used to gather all participant information and future work should use assessment tools that reduce shared method variance, such as clinician-rated functioning or symptoms. Sampling using diagnoses confirmed beyond self-report should also assess for differences with the present findings. Next, future work should include additional assessments to further

examine the construct validity of several domains that emerged in the present results. For instance, meta-cognition was not formally assessed, but has been associated with stigma resistance (Nabors et al., 2014). Future work might take a more nuanced approach to examine the subscales of the new measure to test whether the metacognitive stigma resistance subscale is more closely linked with other measures of metacognition. Another limitation is that we did not specifically ask about participants' level of peer involvement and formal advocacy; assessing these variables in the future would provide additional criterion-related validity and could help inform whether the factors are developmental – for example, do individuals first engage in personal stigma resistance, then peer, then public.

In addition to having strong reliability and construct validity, the new measure of stigma resistance also has several clinical applications. First, the Stigma Resistance Scale may have the potential to inform intervention targets and guide treatment. For instance, it may be that someone who scores low on the Personal Metacognition subscale may be particularly well suited for metacognitive therapy or self-stigma interventions such as Narrative Enhancement and Cognitive Therapy (Roe et al., 2014; Yanos et al., 2011). Similarly, individuals who score lower on the Personal Cognitions subscale may be good candidates for CBT-oriented therapies that address self-stigma (Lucksted et al., 2011; Yanos, Lucksted, Drapalski, Roe, & Lysaker, 2015). Low scores on Peer Stigma Resistance might point to opportunities to work with peers (e.g., employment as a peer specialist or volunteer opportunities) might be beneficial (Davidson et al., 2012; Firmin et al., 2015). For those scoring low on Public Stigma Resistance, advocacy training, experiences practicing sharing one's story, and support for decisions about personal

disclosures (Corrigan et al., 2013; Rüsch et al., 2014) may assist individuals in this domain of stigma resistance. Having a tool that reflects distinct, and potentially sequential, facets of stigma resistance may allow clinicians to tailor appropriate interventions.

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TABLES

Table 1. Demographic Information

	Combined Sample (*N*= 530)	MTurk (*n*=328)	Conference (*n*=202)	Significance Test	Effect Size (Cohen's *d*)
Age (mean, SD)	39.3 (13.3)	37.4 (11.6)	47.9 (11.7)	t = -12.78***	0.90
Sex (*n*, % Female)	369 (70.2%)	234 (71.3%)	135 (68.2%)	χ^2 = 2.42, p=.35	--
Race (*n*, % White)	411 (77.5%)	283 (86.3%)	128 (62.2%)	χ^2 = 37.70***	--
Education (% BA or above)	178 (33.6%)	134 (40.9%)	44 (21.8%)	χ^2 = 20.39***	--
Employment (% currently employed)	244 (46.2%)	115 (35.1%)	129 (64.5%)	χ^2 = 43.32***	--
If employed, avg. hrs.per week (mean, SD)	34.7 (11.0)	36.2 (10.0)	27.4 (12.7)	t = 4.97***	0.77
Marital status (% never married)	259 (48.9%)	169 (51.5%)	90 (44.6%)	χ^2 = 2.43, p=.12	--
Mental health diagnosis					
Anxiety	125 (23.6%)	91 (27.7%)	34 (16.8%)	χ^2 = 8.26**	--
Depression	177 (33.4%)	132 (40.2%)	45 (22.3%)	χ^2 = 18.14***	--
Schizophrenia-spectrum	51 (9.6%)	1 (0.3%)	51 (25.3%)	χ^2 = 85.92***	--
Bipolar disorder	66 (12.5%)	30 (9.1%)	36 (17.8%)	χ^2 = 8.63**	--
Substance use	14 (2.6%)	9 (4.5%)	5 (1.5%)	χ^2 = 4.18*	--
Other (e.g., ADHD, PTSD)	87 (16.4%)	19 (9.4%)	68 (20.7%)	χ^2 = 11.69***	--

Note: *=.05, **=.01, ***=.001.

Table 2. Comparison of MTurk and Conference Data Used for CFAs

	Combined Sample (*N*= 530)	MTurk (*n*=328)	Conference (*n*=202)	Significance Test	Effect Size (Cohen's *d*)
Final Stigma Resistance Scale: 20 item[a]	4.1 (0.6)	3.9 (0.4)	4.3 (0.7)	t = -7.38***	0.70
Personal Metacognition SR	4.0 (0.8)	3.8 (0.7)	4.2 (0.7)	t = -4.90***	0.57
Personal Identity SR	4.3 (0.8)	4.1 (0.7)	4.5 (0.8)	t = -6.15***	0.53
Personal Cognitions SR	3.9 (0.8)	3.7 (0.8)	4.1 (0.9)	t = -5.96***	0.47
Peer SR	4.1 (0.7)	3.9 (0.6)	4.4 (0.7)	t = -8.03***	0.77
Public SR	4.1 (0.7)	3.9 (0.6)	4.3 (0.8)	t = -5.39***	0.57
Old Stigma Resistance Subscale[b]	2.1 (0.9)	2.0 (0.4)	3.5 (0.7)	t = -28.68***	2.63
Positive Aspects[b]	--	--	3.0 (0.7)	--	--
Self-Stigma[b]	2.1 (0.7)	2.0 (0.6)	2.1 (0.8)	t = -1.81, p=.07	0.14
Perceived Public Stigma[b]	3.0 (0.7)	2.9 (0.5)	2.6 (0.5)	t = 6.67***	0.60
Fear of Negative	3.2 (1.1)	3.4 (1.1)	2.9 (1.2)	t = 4.76***	0.43
Evaluation[a]	4.5 (0.8)	4.8 (0.8)	4.1 (0.7)	t = 10.23***	0.93
Recovery Assessment Scale[a]					
Quality of Life[a]	4.0 (1.2)	4.2 (1.4)	3.6 (0.8)	t = 6.65***	0.53
Overall Symptoms[a]	3.3 (1.1)	3.9 (0.8)	2.3 (0.9)	t = 20.23***	1.88
Depressive Symptoms[c]	1.9 (1.0)	2.3 (0.7)	1.0 (0.8)	t = 18.20***	1.73
Defeatist Beliefs[d]	3.3 (1.2)	3.5 (1.1)	3.1 (1.2)	t = 3.80***	0.35
Self-Efficacy[b]	3.0 (0.6)	3.0 (0.5)	3.1 (0.6)	t = -3.44***	0.18

Note: Missing values ranged from 3 -12 for all variables except for the RAS, QL, and DAS. Due to a copying error, those 3 measures were omitted from several surveys and missing values range from 31-35. N's varied from 319 -328 in the MTurk sample and 191 – 202 in the Conference sample. [a]=Scales range from 1 to 5 with greater scores meaning more of the construct. [b]=Scales range from 1 to 4 with greater scores meaning more of the construct. [c]=Scales range from 0-3 with greater scores meaning more of the construct. [d]=Scales range from 1-7 with greater scores meaning more of the construct. *=.05, **=.01, ***=.001.

Table 3. Item Performance of the Preliminary 26 Items (Selected from the MTurk Subsample, *n*=161)

Domain	Item	Mean	Item total
Public	2. I share my story with others to let them know about mental illness and recovery.	3.3 (1.2)	.46
	5. I question the misinformation I hear from others about mental illness.	3.9 (0.9)	.49
	6. Resisting stigma means speaking up when others say negative things about mental illness.	4.0 (0.8)	.53
	8. I advocate for better treatment for people with mental illness.	3.9 (1.0)	.61
	12. I believe teaching others about mental illness is a way to fight stigma.	4.1 (0.8)	.46
Peer	15. I encourage others who have a mental illness by showing them there is hope	3.8 (0.9)	.61
	16. My lived experiences with mental illness can help others with their recovery	3.8 (0.9)	.68
	17. The way I live shows other people that stigma is wrong.	3.7 (1.0)	.69
	18. I help other people with mental illness resist stigma by showing I believe in	3.9 (0.9)	.58
	19. I help others see they should not be ashamed about mental illness	4.0 (0.9)	.68
Personal	24. People with mental illness make important contributions to society. (ISMI-SR)	4.2 (0.8)	.44
	31. I challenge negative thoughts that I may have about myself related to having a mental illness.	3.8 (0.8)	.62
	32. To resist stigma, I remember positive things about myself.	3.8 (0.9)	.55
	33. I actively tell myself positive things to help resist stigma.	3.7 (0.9)	.53
	35. I can have a good, fulfilling life, despite my mental illness. (ISMI-SR)	3.9 (1.0)	.51
	36. I have done meaningful things in my life since having a mental illness.	4.1 (0.9)	.51
	37. I know there is more to me than my mental illness.	4.4 (0.8)	.50
	38. Even though mental illness is a part of my life, it is not my whole life.	4.3 (0.8)	.50
	40. My diagnosis does not define me.	4.2 (0.8)	.55
	42. I can have a positive view of myself even when others don't have a positive view of me.	3.7 (1.0)	.49
	43. When I encounter stigma, I can think of why these attitudes are wrong.	4.0 (0.8)	.69
	44. Resisting stigma means doing what I want to do, no matter what others think about me.	3.8 (0.9)	.46
	46. Knowing about mental illness makes me feel more confident when I face stigma.	4.0 (0.8)	.66
	51. Managing my illness is an important part of resisting stigma.	3.5 (1.0)	.40
	52. I work to resist stigma every day.	3.9 (0.8)	.61
	53. My recovery can help prove to myself that stigma is not true.	4.0 (0.7)	.43

Note: Item numbering reflects the item pool, numbered 1-54. Items selected were re-numbered 1-26 and are referred to using the updated numbering in subsequent analyses.

Table 4. Twenty-six Item-EFA Results (MTurk subsample, *n* = 161)

Factor	Eigenvalue	% Variance	% Cumulative
1	9.20	35.4	35.4
2	2.18	8.4	43.8
3	1.92	7.4	51.2
4	1.59	6.1	57.3
5	1.18	4.5	61.8
6	0.95	3.7	65.4

Table 5. Confirmatory Factor Analysis Data

Sample	Model	Total Items	Fit Indices			
			SRMR	RMSEA	CFI	χ^2
MTurk	Unidimensional	26	0.08	0.10	0.73	1330.08 (299)
MTurk	3 factors	26	0.07	0.09	0.79	1100.34 (296)
MTurk	5 factors	26	0.07	0.08	0.85	571.18 (289)
Conference	Unidimensional	26	0.06	0.10	0.81	897.04 (299)
Conference	3 factors	26	0.06	0.10	0.83	839.12 (296)
Conference	5 factors	26	0.06	0.09	0.86	723.36 (289)
Combined	5 factors	26	0.05	0.07	0.91	938.57 (289)
Combined	5 factors	22[a]	0.05	0.06	0.93	629.66 (199)
Combined	5 factors	21[b]	0.04	0.06	0.94	647.46 (179)
Combined	5 factors	20[c]	0.04	0.06	0.94	484.60 (160)

Note: All χ^2 values were significant at the $p<.0001$ level. [a]Items 23-26 removed; [b]Items 11 and 23-26 removed; [c]Items 11, 18, and 23-26 removed.

Table 6. Item Performance of the 26 items in Final Combined Samples (*N*=530)

	Mean (SD)	Item-Total Corr.	Total α if Item removed
1. I share my story with others to let them know about mental illness and recovery.	3.7 (1.2)	.56	.95
2. I question the misinformation I hear from others about mental illness.	4.0 (1.0)	.41	.95
3. Resisting stigma means speaking up when others say negative things about mental illness.	4.1 (0.9)	.48	.95
4. I advocate for better treatment for people with mental illness.	4.1 (1.0)	.58	.94
5. I believe teaching others about mental illness is a way to fight stigma.	4.3 (0.8)	.60	.94
6. I encourage others who have a mental illness by showing them there is hope.	4.2 (0.9)	.72	.94
7. My lived experiences with mental illness can help others with their recovery.	4.0 (0.9)	.73	.94
8. The way I live shows other people that stigma is wrong.	3.9 (0.9)	.69	.94
9. I help others resist stigma by showing that person I believe in them.	4.1 (0.8)	.68	.94
10. I help others see they should not be ashamed about mental illness.	4.2 (0.9)	.70	.94
11. People with mental illness make important contributions to society.	4.4 (0.8)	.53	.95
12. I challenge negative thoughts that I may have about myself related to having a mental illness.	3.9 (0.9)	.58	.95
13. To resist stigma, I think about positive things about myself.	3.9 (0.9)	.64	.94
14. I actively tell myself positive things to help resist stigma.	3.8 (1.0)	.61	.94
15. I can have a good, fulfilling life, despite my mental illness.	4.1 (1.0)	.66	.94
16. I have done meaningful things in my life since having a mental illness.	4.2 (0.9)	.63	.94
17. I know there is more to me than my mental illness.	4.5 (0.8)	.68	.94
18. Even though mental illness is a part of my life, it is not my whole life.	4.3 (0.9)	.64	.94
19. My diagnosis does not define me.	4.2 (0.9)	.67	.94
20. I can have a positive view of myself even when others don't have a positive view of me.	3.9 (1.1)	.63	.94
21. When I encounter sigma, I can think of why these attitudes are wrong.	4.1 (0.9)	.65	.94
22. Resisting Stigma means doing what I want to do, no matter what others think about me.	3.9 (1.0)	.54	.95
23. Knowing about mental illness makes me feel more confident when I fact stigma.	4.2 (0.8)	.69	.94
24. I work to resist stigma every day.	3.7 (1.0)	.55	.95
25. My recovery can help to prove to myself that stigma is not true.	4.1 (0.8)	.70	.94
26. Staying well helps me fight stigma.	4.2 (0.8)	.69	.92

*=.05, **=.01, ***=.001.

Table 7. Item Performance of the Final 20 Items and 5-factor Model in Final Combined Samples (*N*=530)

		Total Scale (20 items)		Subscales (5 factor model)	
Subscale	Item	Item- Total Corr	Total Scale α if Item Removed	Item-Subscale Corr	Subscale α if Item Removed
Personal Metacog.	1. I can have a positive view of myself even when others don't have a positive view of me.	.63	.93	.55	.59
	2. When I encounter sigma, I can think of why these attitudes are wrong.	.64	.93	.56	.59
	3. Resisting Stigma means doing what I want to do, no matter what others think about me.	.52	.93	.48	.67
Personal Identity	4. I can have a good, fulfilling life, despite my mental illness.	.66	.93	.70	.80
	5. I have done meaningful things in my life since having a mental illness.	.63	.93	.69	.80
	6. I know there is more to me than my mental illness.	.66	.93	.73	.79
	7. My diagnosis does not define me.	.65	.93	.63	.83
Personal Cognitions	8. I challenge negative thoughts that I may have about myself related to having a mental illness.	.57	.93	.55	.87
	9. To resist stigma, I think about positive things about myself.	.62	.93	.63	.65
	10. I actively tell myself positive things to help resist stigma.	.65	.93	.60	.71
Peer	11. I encourage others who have a mental illness by showing them there is hope.	.72	.93	.72	.85
	12. My lived experiences with mental illness can help others with their recovery.	.72	.93	.75	.84
	13. The way I live shows other people that stigma is wrong.	.69	.93	.65	.86
	14. I help others resist stigma by showing that person I believe in them.	.67	.93	.70	.85
	15. I help others see they should not be ashamed about mental illness.	.69	.93	.71	.85
Public	16. I share my story with others to let them know about mental illness and recovery.	.56	.93	.48	.72
	17. I question the misinformation I hear from others about mental illness.	.40	.93	.50	.70
	18. Resisting stigma means speaking up when others say negative things about mental illness.	.47	.93	.52	.70
	19. I advocate for better treatment for people with mental illness.	.59	.93	.54	.69
	20. I believe teaching others about mental illness is a way to fight stigma.	.58	.93	.54	.70

Table 8. Correlation Matrix in Combined Data of the 20-item Total and 5-factor Sub-scales

	1	2	3	4	5	6	7	8
1. SR-New Total	1.0							
2. Personal Metacognition SR	.81***	1.0						
3. Personal Identity SR	.84***	.59***	1.0					
4. Personal Cognitions SR	.78***	.64***	.59***	1.0				
5. Peer Stigma Resistance	.89***	.61***	.68***	.63***	1.0			
6. Public Stigma Resistance	.83***	.50***	.56***	.56***	.73***	1.0		
7. Positive Aspects	.47***	.40***	.40***	.42***	.43***	.39***	1.0	
8. Old SR (ISMIS subscale)	.16***	.12**	.08	.09*	.18***	.16***	.16*	1.0
9. ISMIS Total (24 item)	-.39***	-.26***	-.44***	-.34***	-.28***	-.30***	-.18*	-.15***
10. ISMIS Alienation	-.36***	-.27***	-.41***	-.33***	-.26***	-.26***	-.11	-.10*
12. ISMIS Stereotype Endorsement	-.41***	-.23***	-.44***	-.33***	-.33***	-.37***	-.16*	-.13**
12. ISMIS Discrimination Experience	-.19***	-.16***	-.24***	-.16***	-.11*	-.13**	-.15*	-.20***
13. ISMIS Social Withdrawal	-.36***	-.27***	-.41***	-.31***	-.26***	-.27***	-.20**	-.09*
14. Perceived Discrimination	-.17***	-.21***	-.14***	-.16***	-.13**	-.09*	-.12	-.19***
15. Self-Efficacy	.54***	.47***	.54***	.51***	.43***	.33***	.49***	.05
16. Fear of Negative Evaluation	-.23***	-.20***	-.22***	-.33***	-.15***	-.12**	-.12	-.16***
17. Recovery Attitudes	.38***	.35***	.42***	.37***	.28***	.22***	.40***	.45***
18. Quality of Life	.38***	.36***	.38***	.40***	.24***	.30***	.31***	.10
19. Overall Symptoms	-.26***	-.18***	-.16***	-.17***	-.28***	-.25***	-.20*	-.63***
20. Depressive Symptoms	-.42***	-.40***	-.44***	-.35***	-.35***	-.24***	-.09	-.49***
21. Defeatist Beliefs	-.47***	-.35***	-.45***	-.44***	-.37***	-.35***	-.27***	-.11*

Note: *=<.05, **=<.01, ***=<.001. The PA was only administered in the Conference sample (n = 195).

Table 9. Stigma Resistance Scale

Please read the following statements and indicate how much you disagree or agree on a scale of 1 (disagree) to 5 (agree). .
1. I can have a positive view of myself even when others don't have a positive view of me.
2. When I encounter sigma, I can think of why these attitudes are wrong.
3. Resisting Stigma means doing what I want to do, no matter what others think about me.
4. I can have a good, fulfilling life, despite my mental illness.
5. I have done meaningful things in my life since having a mental illness.
6. I know there is more to me than my mental illness.
7. My diagnosis does not define me.
8. I challenge negative thoughts that I may have about myself related to having a mental illness.
9. To resist stigma, I think about positive things about myself.
10. I actively tell myself positive things to help resist stigma.
11. I share my story with others to let them know about mental illness and recovery.
12. I question the misinformation I hear from others about mental illness.
13. I encourage others who have a mental illness by showing them there is hope.
14. My lived experiences with mental illness can help others with their recovery.
15. The way I live shows other people that stigma is wrong.
16. I help others resist stigma by showing that person I believe in them.
17. I help others see they should not be ashamed about mental illness.
18. Resisting stigma means speaking up when others say negative things about mental illness.
19. I advocate for better treatment for people with mental illness.
20. I believe teaching others about mental illness is a way to fight stigma.

Table 10. ISMIS Stigma Resistance Subscale Items

	Item	Construct
1	I feel comfortable being seen in public with an obviously mentally ill person.	Public Stigma
2	In general, I am able to live life the way I want to.	
3	I can have a good fulfilling life despite my mental illness.	
4	People with mental illness make important contributions to society.	Public Stigma
5	Living with mental illness has made me a tough survivor.	

FIGURES

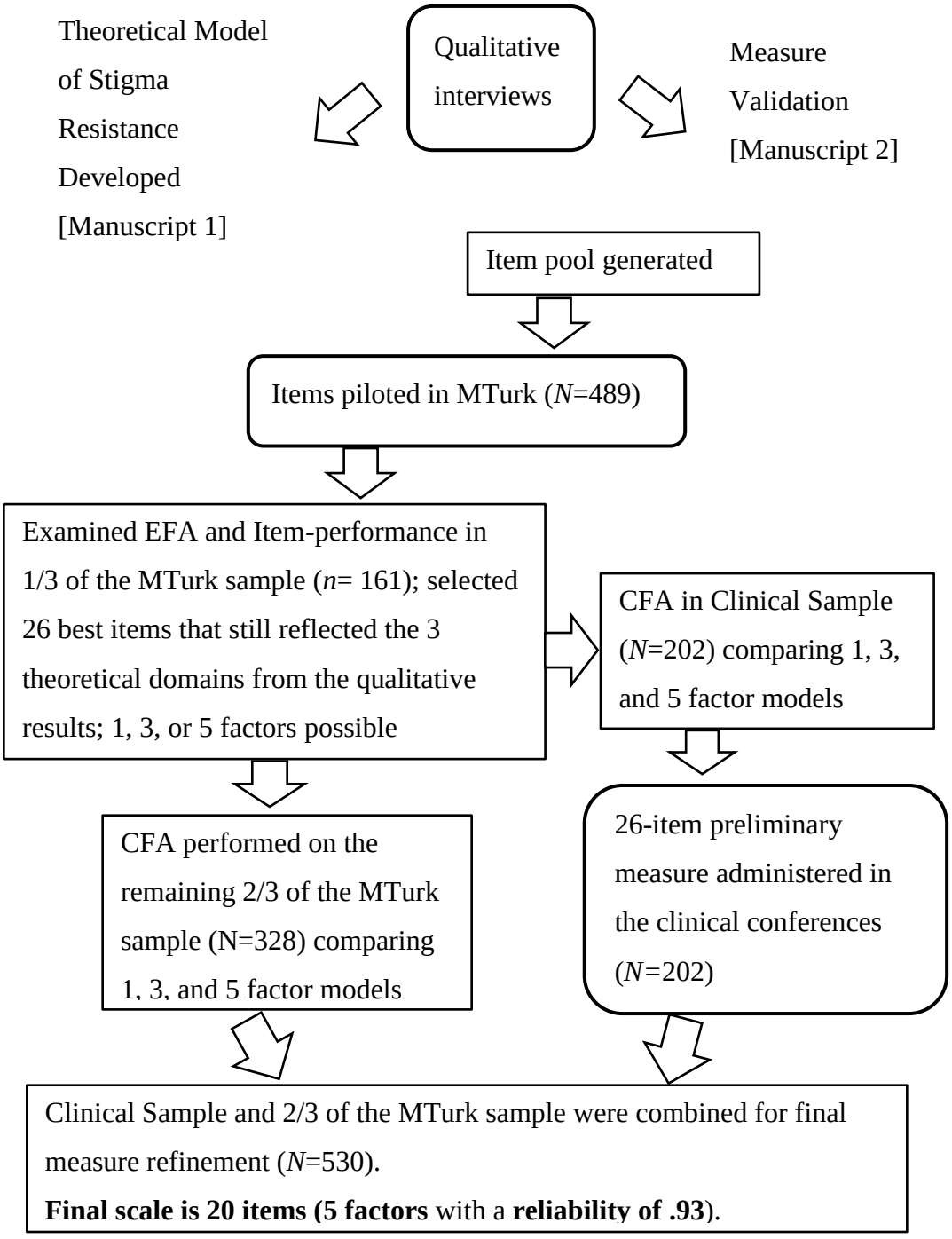

Figure 1: Methods Overview

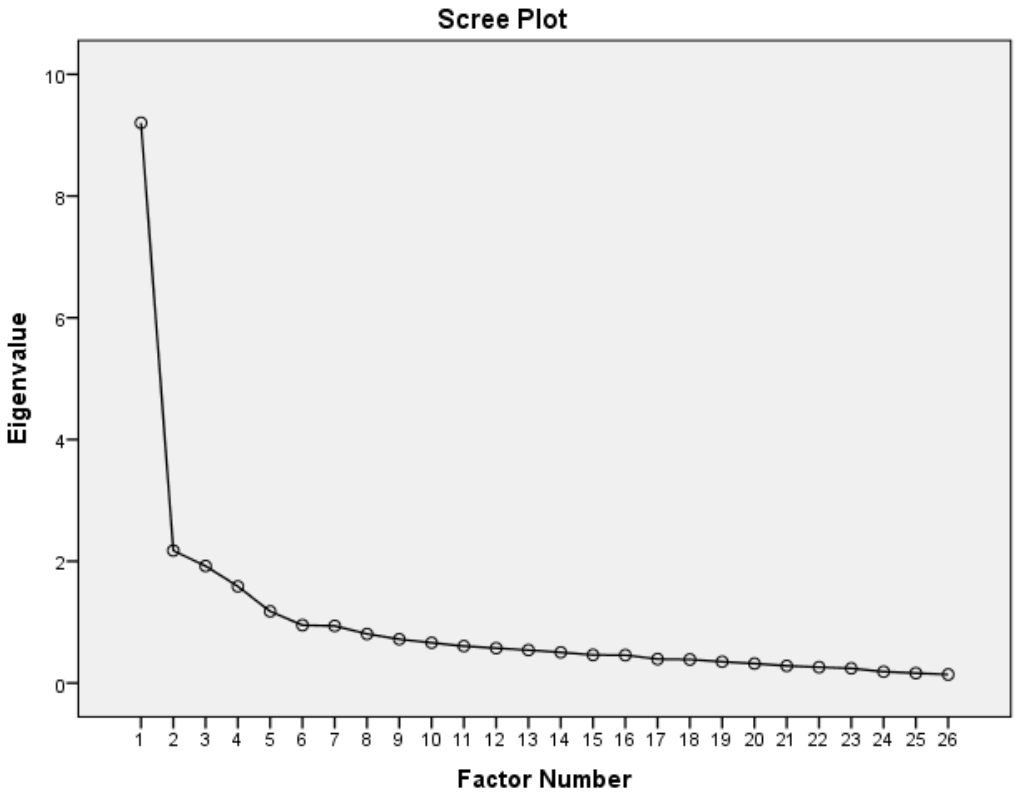

Figure 2: Scree Plot for the EFA Run on a Sub-sample the MTurk Data (n = 161)

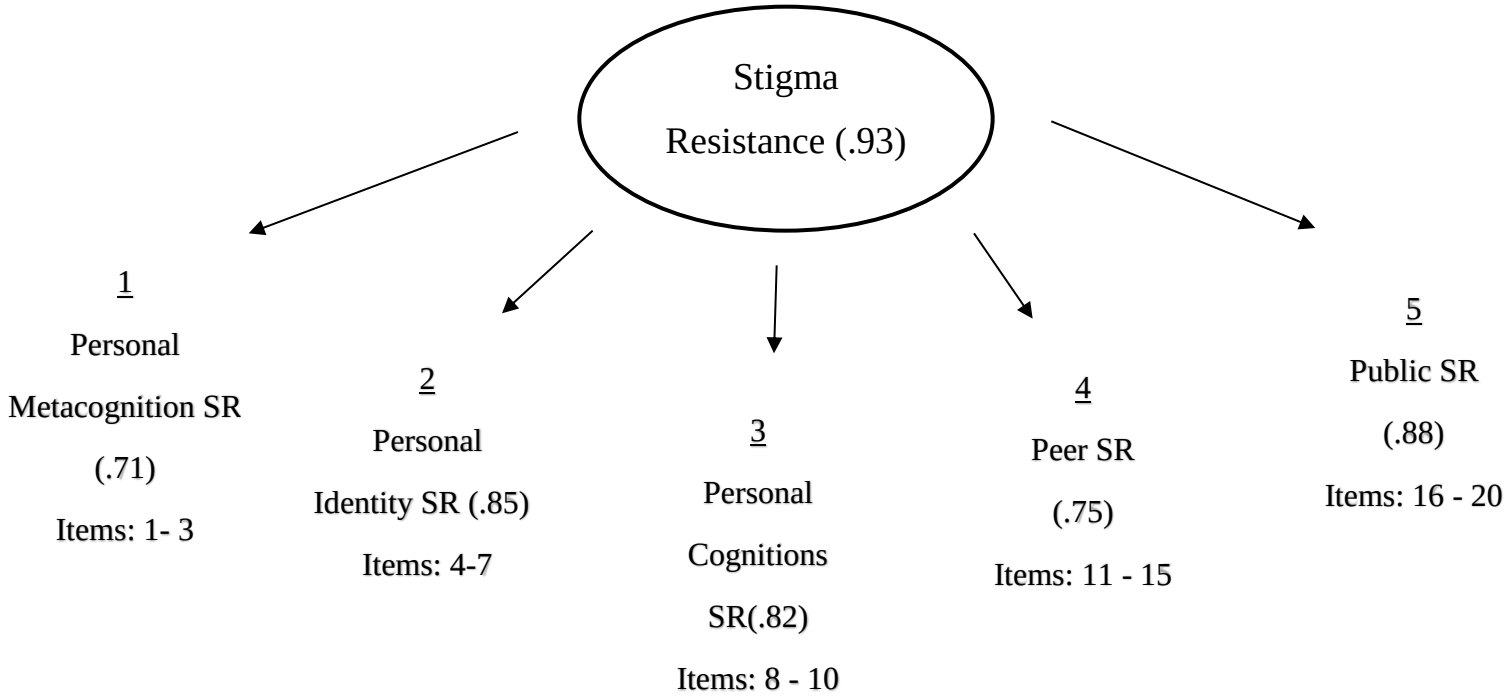

Figure 3: Five Factor Model of the 20-item Stigma Resistance Scale