

**A new look at the Attribution Model: Considerations for the measurement of public mental illness stigma**

Annalee Johnson-Kwochka, M.S.<sup>1</sup>

Kyle S. Minor, Ph.D.<sup>1</sup>

Leslie Ashburn-Nardo, Ph.D.<sup>1</sup>

Wei Wu, Ph.D.<sup>1</sup>

Laura G. Stull, Ph.D.<sup>2</sup>

Michelle P. Salyers, Ph.D.<sup>1</sup>

<sup>1</sup> Department of Psychology, Indiana University-Purdue University Indianapolis

<sup>2</sup> Department of Psychology, Anderson University

Corresponding author information:

Annalee Johnson-Kwochka

IUPUI Psychology Department

402 N Blackford Street

Indianapolis, Indiana, 46202

anjohns@iu.edu

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### Abstract

Multiple versions of the Attribution Model and the corresponding Attribution Questionnaire have been used to assess public mental illness stigma. The objective of the current study was to examine 1) the factor structure of the Attribution Questionnaire and 2) relationships between constructs in the Attribution Model. Analyzing a sample of 334 U.S. adults recruited from Amazon Mechanical Turk, the authors employ confirmatory factor analyses to test three proposed factor structures of the Attribution Questionnaire and latent variable path analyses to re-examine relationships between variables in the stigmatization of people who experience mental illness. Confirmatory factor analyses of three previously examined versions of the Attribution Model revealed that the model proposed by the initial version of the Attribution Questionnaire had the best fit with the data (CFI = 0.92, RMSEA = 0.07, SRMR = 0.05). Subsequent path analyses among constructs in the model revealed acceptable model fit (CFI = 0.92, RMSEA = 0.07, SRMR = 0.06) and individual paths largely supported the hypotheses suggested by the Attribution Model. Analyses supported the original version of the Attribution Model and questionnaire with slight modifications, demonstrating that attributions of dangerousness and personal responsibility are associated with endorsement of coercive treatment, and that attributions about dangerousness are associated with a lower desire to help. These findings suggest modifications in the current measurement of public mental illness stigma.

Keywords: mental health, social rejection, factor analysis, dangerousness

### Introduction

Since the 1960's, mental health service providers, researchers, and advocates have attempted to engage the American public in an effort to eliminate discrimination against people with mental illness (Corrigan & Al-Khouja, 2018; Goffman, 1986; Spagnolo et al., 2008). As a result of these efforts, access to mental health care in the United States has improved (Hinshaw & Cicchetti, 2000; Mark et al., 2011; Phelan et al., 2000) and members of the American public today are frequently exposed to depictions of people living with specific mental illnesses in media and popular culture (although these representations are not always accurate). Still, people diagnosed with mental illnesses today experience stigma and social rejection in a diverse range of environments, including work, daily social interactions, and healthcare settings (Cechnicki et al., 2011; Corrigan et al., 2015; Parcesepe & Cabassa, 2013; Penn et al., 1999; Pescosolido et al., 2013; Teachman et al., 2006).

Stigma is broadly composed of four co-occurring constructs: 1) the labeling of an out-group, 2) endorsement of stereotypes and negative attributions about that group, 3) perceived separation and difference from the group, and 4) status loss and discrimination (Link & Phelan, 2001). *Public* mental illness stigma is defined as the prejudice against mental illness and discrimination against people with mental illnesses endorsed by the general population, which in turn affects an individual person (Corrigan et al., 2003). Public mental illness stigma itself is multifaceted, composed of a range of negative attitudes, attributions, and stereotypes that have differential impacts on the public's behaviors towards people with specific mental illness diagnoses.

In an effort to better understand the hierarchical processes and judgements that take place in the development of public mental illness stigma, Corrigan and colleagues (2003) proposed the Attribution Model, one of the most-researched conceptualizations of the causes of public mental

illness stigma. They postulate that attributions about the causes, controllability, and dangerousness of a mental illness predict the public's beliefs about personal responsibility for an illness, which then predict emotional responses and discriminatory or helping behavior. Studies examining the Attribution Model find that beliefs about the cause of mental illness and perceptions of dangerousness predict discriminatory responses (e.g., the unwillingness to help or hire those with mental illnesses) and support for coercive treatment in institutional settings (Corrigan et al., 2003; Lee et al., 2014). Corrigan and colleagues (2003) also find that beliefs about controllability predict beliefs about a person's responsibility for their mental illness (i.e., if someone is believed to be more in control of their mental illness, they are also held more responsible for the symptoms).

Since the conceptualization of the model and its corresponding measure (the Attribution Questionnaire), researchers have sought to refine the theoretical constructs described by the model and better delineate the nature of the relationships between these constructs. The initial development of the Attribution Questionnaire proposed 21 items loading onto 6 constructs: Personal responsibility, pity, anger, fear, helping, and coercion/segregation (Corrigan et al., 2003). More recently cited versions of the questionnaire are composed of 27 (all 21 original items, plus 6 additional) items loading onto 9 constructs (the AQ-27): Blame (analogous to the previous "personal responsibility" construct), dangerousness, pity, fear, anger, help, coercion, segregation, and avoidance (Corrigan et al., 2015; Sousa et al., 2012). In an exploratory factor analysis of the 27-item scale, Brown (2008) suggested evidence for a questionnaire in which 26 items (removing one item altogether) load onto 6 factors: Personal responsibility, fear/dangerousness, empathy, negative emotions, help/interact, and forcing treatment. See Table 1 for a comparison of the number of factors and constructs assessed in each of these measures.

Multiple versions of the AQ are used in current research (e.g., the AQ-27; (Sousa et al., 2012), the revised AQ; (Pinto et al., 2012), the brief AQ; (Corrigan et al., 2014)), suggesting a need for further clarification (and possible simplification) of the Attribution Model and corresponding Attribution Questionnaire (Fox et al., 2018).

It is essential for the field of stigma research to develop and maintain strong measures of mental illness stigma, which can comprehensively assess components of stigma across mental illnesses while simultaneously avoiding redundant questions. In addition, understanding the factor structure of these measures helps us to make and test hypotheses about the relationships between latent factors in the development of stigma. For example, later versions of the Attribution Model distinguish between “dangerousness” (the danger attributed to a person with a mental illness) and “fear” (felt as a reaction to attributions about danger), but it is possible that members of the public may not distinguish between these two ideas, rendering the Attribution Model less accurate.

In the current study, we use confirmatory factor analysis to examine the factor structure of previously proposed versions of the Attribution Questionnaire. We then use latent variable path analysis to examine possible relationships between the factors. Our hope was to refine our understanding of relationships between factors in the Attribution Model so that we can better understand and address mental illness stigma.

### **Methods**

This analysis represents a subset of data from a cross-sectional, experimental study of predictors of stigma in which participants were recruited using Amazon Mechanical Turk (Author, under review). After providing informed consent, participants completed demographic questions and then completed the Attribution Questionnaire on an online survey created in

Qualtrics (*Qualtrics*, 2005). At the end of the survey, participants were assigned a code verifying their completion, and were paid \$2.00. Participants whose responses passed attention checks were paid an additional \$0.20. Average completion time was 10 minutes; compensation translated to approximately \$12/hour. All procedures were approved by the University's IRB.

### **Participants**

Participants were at least 18 years of age, resided in the United States, and spoke English. In order to maintain data quality, we included attention checks (e.g., questions prompting the participant to select "5" as the answer) embedded within standard survey items and excluded any responses that did not correctly respond to these prompts when conducting data analysis. Current research indicates that such quality checks are sufficient when gathering data in MTurk research (Hauser & Schwarz, 2016; Kees et al., 2017). Of 410 total participants, 334 (81%) provided correct answers to attention checks and were analyzed. Among the 334 participants, 139 (42%) were female, 269 (81%) identified as White or Caucasian, and 300 (90%) identified as non-Hispanic. Two hundred and twenty-five (67%) reported that their annual income was less than \$50,000 per year, and 194 (58%) had at least a bachelor's degree. The mean age was 35.8 (SD = 10.3).

### **Measures**

*Attribution Questionnaire.* Mental illness stigma was assessed using the Attribution Questionnaire (AQ-27), a 27-item questionnaire that first presents a vignette involving a person living with mental illness, and then asks a series of questions measuring factors related to stigma based on an attributional model of stigma. Traditionally, the AQ-27 has been scored on 9 subscales: *blame*, *anger*, *pity*, *help*, *dangerousness*, *fear*, *avoidance*, *segregation*, and *coercion*. The AQ-27 is theoretically driven (Corrigan et al., 2003; Pingani et al., 2012) and has been

shown to be reliable and valid (Corrigan & Watson, 2002; Pinto et al., 2012). In a sample of college students, the AQ-27 demonstrated good test-retest reliability across subscales ( $> .75$ ) and convergent validity with measures of social distance (Brown, 2008). The original AQ-27 presents a vignette about a man (Harry) with schizophrenia. For this study, we modified the survey to present vignettes about a woman (Kim) with either schizophrenia, major depressive disorder, or anorexia nervosa as we were interested in diagnosis as a predictor; the purpose was to expand the generalizability of the Attribution Model by assessing attributions about multiple diagnoses and examining relationships between constructs in the Attribution Model as relevant to multiple diagnoses. We chose to change the vignette to be about a woman because anorexia nervosa is stereotypically associated with women (whereas the other two diagnoses are generally perceived as more gender-neutral), and a man with anorexia nervosa might be more stigmatized by way of violating gender expectations (Griffiths et al., 2014). Participants were randomly assigned to read one of the three vignettes prior to completing the measure. The vignettes were the same on all features except diagnosis. In our sample, the overall scale demonstrated excellent internal consistency ( $\alpha = 0.91$ ), and each initial subscale demonstrated at least acceptable internal consistency (AQ-27 subscales: Blame  $\alpha = .80$ , Anger  $\alpha = .92$ , Pity  $\alpha = .79$ , Help  $\alpha = .82$ , Dangerousness  $\alpha = .94$ , Fear  $\alpha = .93$ , Avoidance  $\alpha = .77$ , Segregation  $\alpha = .92$ , Coercion  $\alpha = .66$ ).

### **Analyses**

To test the Attribution Model of stigma as hypothesized in the existing literature and in the Attribution Questionnaire, we used structural equation modeling, which allows us to examine the target relationships at the latent variable level. Multiple indicators are used for each latent variable; in this study, individual items of the AQ were used to indicate the latent constructs

from their corresponding subscales. All models were conducted using MPLUS version 8 (Muthén & Muthén, 2017) and evaluated using Robust Maximum Likelihood methods, which produce an adjusted chi-square test statistic that is robust to multivariate nonnormality. Missing data was minimal (13 observations) and was deleted listwise.

Analyses followed the recommended two-step procedure (Anderson & Gerbing, 1988). First, confirmatory factor analysis (CFA) was used to develop a measurement model with correlated factors that demonstrated acceptable fit with the data. We examined three separate measurement models previously proposed or examined in the literature (Brown, 2008; Corrigan et al., 2003; Corrigan et al., 2015), as shown in Supplementary Online Figures 1-3. After determining which measurement model best fit the data, causal paths between the latent variables (as hypothesized in Figure 2) were estimated. Given that it is unlikely that prejudices completely mediate the relationship between stereotypes and discrimination, we examined both direct and indirect paths between variables. Using the modification indices available in MPLUS and based on existing theory around stigma, we iteratively respecified the model to better fit the current data. Because the chi-square test is very sensitive to sample size and often rejects well-fitting models (Ullman & Bentler, 2012), three practical fit indices and their cutoff criteria were utilized to assess goodness of fit for all models: the comparative fit index (CFI; values of .95 or greater), the root-mean-square error of approximation (RMSEA; values below .08) (Steiger, 2007), and the standardized root-mean-square residual (SRMR; values of .08 or less) (Hu & Bentler, 1999). In addition, we examined the Akaike Information Criterion (AIC; Akaike, 1973) and Bayesian Information Criterion (BIC; Raftery, 1995) to compare the non-nested models; for both of these criteria, smaller numbers indicate a better model. We used the 95% CIs from the naive bootstrap approach to test the significance of the indirect, direct, and total effects (Shrout & Bolger, 2002).



If the CI for a target effect did not cover 0, then the effect was significant. Using the approach of MacCallum, Brown, and Sugawara (1996) to power analysis for structural equation modeling, and based on the degrees of freedom of our tested models, our sample size should provide greater than 99% power to reject incorrect models.

## Results

### Measurement Model

The measurement model describes the nature of the relationship between the latent variables and the manifest indicator variables that compose the latent factors. The three models tested from our data were comprised of between 6 and 9 latent constructs and their indicator variables (between 21 and 27 items from the AQ-27), as shown in Supplementary Online Figures 1-3. Analysis of the three models indicated that the 27-item model previously explored via exploratory factor analysis (Brown, 2008) had acceptable fit with the data (CFI = .92, RMSEA = .08, SRMR = .07, AIC = 32107.88, BIC = 32462.04); modification indices did not suggest any significant modifications to the model that would provide a better fit with the data. See Table 1 for a summary of model fit across all three tested models.

The measurement model suggested by the most recent version of the Attribution Questionnaire (Corrigan et al., 2015) provided an acceptable fit to the data (CFI = .92, RMSEA = .08, SRMR = .06, AIC = 33511.05, BIC = 33956.60). However, the latent variable covariance matrix was not positive definite due to negative residual variance in the indicator variables for the latent variable fear. Given that the correlation between the fear and dangerousness factors was very high ( $r = .92$ ), it is likely there is only one latent factor underlying the indicators for the fear and dangerousness subscales.

The model proposed by the initial version of the Attribution Questionnaire also revealed acceptable model fit (CFI = 0.93, RMSEA = 0.08, SRMR = 0.06, AIC = 25844.73, BIC = 26141.77). Modification indices suggested that one item be changed (M.I. = 76.0, StdXY EPC = 1.1); the item “I think Kim poses a risk to her neighbors unless she is hospitalized” (AQ6), which had originally been used to indicate coercion, better estimated the latent variable fear. Given that this item, on its face, activates ideas about danger, it also made theoretical sense to move this item to indicate fear; we then specified the factor for coercion using only three remaining items and the factor for fear with five items. Scores from both of the newly calculated subscales demonstrated excellent internal consistency (coercion  $\alpha = .92$ , fear  $\alpha = .96$ ). The modified version of the model revealed better model fit, (CFI = 0.95, RMSEA = 0.07, SRMR = 0.05, AIC = 25844.73, BIC = 26141.77).

The model proposed by the initial version of the Attribution Questionnaire had the best fit with the data based on level of fit as indicated by the fit indices. It also had the smallest AIC and BIC values. Therefore, this was our final measurement model (with the minor change of moving AQ6 to fear rather than coercion). See Figure 1 for the final measurement model. See Table 2 for standardized and unstandardized factor loadings from the final measurement model.

### **Structural model**

Using the final measurement model, we then tested the hypothesized direct and indirect paths between stereotypes through prejudices to discriminatory or helping behaviors, at the same time, we estimated the covariance between different types of stereotypes, prejudices, and behaviors; see Figure 2. This structural model revealed acceptable model fit (CFI = 0.95, RMSEA = 0.07, SRMR = 0.06, AIC = 25844.73, BIC = 26141.77).

Figure 3 provides standardized path coefficients for paths between all of the variables (i.e., direct paths between stereotypes and discriminatory or helping behaviors as well as mediational paths from stereotypes through prejudice to discriminatory or helping behaviors). Almost all paths were in the expected direction; however, the one exception was the path from personal responsibility to help/interact, which was significant and positive ( $r = .45$ ; more likely to help with higher responsibility). The direct path between fear/danger and endorsement of coercive treatment was significant and particularly strong in the expected direction ( $r = .86$ ). Many mediational paths were also significant. The paths from personal responsibility ( $r = .49$ ) and fear/danger ( $r = .53$ ) to anger were both significant and strong, as well as the paths from pity to help ( $r = .41$ ) and from anger to help/interact ( $r = -.31$ ).

### **Discussion**

The primary purpose of this study was to refine our understanding of relationships between factors in the Attribution Model and to re-assess the measurement of public stigma in the Attribution Questionnaire. With some minor modification, an early version of the Attribution Model using only 21 of the 27 items from the Attribution Questionnaire (AQ-27; Corrigan et al., 2003) demonstrated the best fit with the data. Most paths between variables in the model were significant, and in the expected direction, supporting the idea that attributions about people with mental illnesses contribute to emotional reactions, which in turn contribute to helping or discriminating behaviors towards people with mental illnesses; attributions also contribute directly to behaviors. In addition, our analyses point to some important nuances in some of those relationships.

### **Appropriateness of the measurement model**

First, the measurement model suggested by the most recent version of the Attribution Questionnaire (AQ-27) did not fit well with the data, primarily because of extremely high correlations between fear and danger subscales. It is possible that people do not distinguish between the cognitive process of attributing danger to a person with a mental illness and reacting to that danger with fearful emotions, or that questions included in the Attribution Questionnaire did not sufficiently distinguish between attributions and emotions. Members of the public may react more readily with fear than with anger or pity, thus conflating danger and fear and allowing for a secondary emotional reaction that is either empathetic (pity) or not (anger).

Our final measurement model, a slight modification of Corrigan and colleagues' initially proposed measure (2003), includes fewer items (21) than are on the AQ-27. The items that were not included in the final measurement model distinguished between fearful emotions and attributions of dangerousness (i.e., items 2 and 3 which made up the fear subscale of the AQ-27), or added additional indicators to the coercive treatment (items 5 and 14) or help (items 8 and 20) subscales. However, several of the final constructs in the measurement model are represented similarly across the three initial models that we tested. For example, Brown (2008) used the same items for pity as used in our study and Corrigan et al (2003), but labeled them "empathy." Similarly, Brown (2008) changed the label of anger to "negative emotions." Since researchers use these labels to understand and explain public reactions to people with mental illnesses, it is important to describe these constructs accurately. Therefore, we have adjusted several of the construct names in our final recommended measurement model. Specifically, we changed the names of "responsibility" and "coercion" to "personal responsibility" and "coercive treatment" to more precisely describe their meaning. The construct coercive treatment represents a combination of items from the coercion and segregation subscales in the AQ-27 (Corrigan et al.,

2015); all of these items indicate variations on the idea that the subject of the vignette should be isolated away from the community in a psychiatric institution, regardless of their own wishes for treatment. We also changed the label of the construct indicating helping behaviors to “help/interact” (as it was labeled by Brown, 2008, although our final construct includes fewer items) because the final makeup of items included items that indicate both helping behaviors and willingness to engage socially with the subject of the vignette (i.e., riding in a carpool). Finally, because the final measurement model combined items that indicated assessments of dangerousness and fearful emotional reactions into one construct, we labeled this construct “fear/danger.” Brown (2008) also combined these items into one construct, although our final construct is again composed of fewer items. Overall, the changes we suggest to the measurement and factor structure of the Attribution Model suggest a simpler model than proposed by recent versions of the Attribution Questionnaire, requiring fewer latent factors and fewer questions to measure them. In particular, our results suggest that the distinction between attributions and emotional reactions to attribution (i.e., between dangerousness and fear) may be fuzzier or more difficult to measure than previously thought.

### **Implications of the structural model**

Analysis of the structural model suggested acceptable fit with the data; this is important, since previous work has examined only parts of the Attribution Model (i.e., examining the impact of attributions about responsibility and dangerousness in separate path models, Corrigan, 2002) and has not specified relationships between all constructs. Many paths were significant; coefficients supported most of the hypotheses in the Attribution Model, and were largely consistent with much of the previous research (Corrigan et al., 2003; Corrigan, 2002). Higher perceptions of danger/fear were associated with increased anger and decreased pity, and also

with increased support of coercive treatment and a decreased desire to help or engage socially with people with mental illnesses. This converges with Corrigan's (2002) findings that increased perceptions of dangerousness were related to increased avoidance and endorsement of coercive treatment, although Corrigan's study tested a preliminary version of the Attribution Model using a slightly different version of the Attribution Questionnaire.

Our only unexpected finding was that attributing personal responsibility to a person with a mental illness was strongly associated with a greater desire to help or interact with that person. This is contrary to previous findings from Corrigan and colleagues (2003). It is possible that assessments of personal responsibility also indicate an assessment that the subject of the vignette may be in control of the course of their illness, and might benefit more from help than someone who cannot control their own symptoms. This would be consistent with previous research finding that endorsement of biogenetic explanations of mental illness are associated with lower assessments of personal responsibility, but a greater desire to avoid people with mental illness (Haslam & Kvaale, 2015), possibly because the illness is then perceived as unchangeable (i.e., that it cannot be recovered from) and the person cannot benefit from help.

We found that attributing personal responsibility to the person with a mental illness was associated with greater anger towards the person with a mental illness, and with decreased pity. This is inconsistent with prior research testing the earliest versions of the Attribution Model and Attribution Questionnaire, which found that personal responsibility was not related to anger and pity (Corrigan, 2002). The version of the personal responsibility subscale used in our study represents three converging constructs: responsibility, controllability, and the notion that the vignette subject is at fault (to blame) for their condition. Notably, earlier versions (Corrigan, 2002) of this subscale only included notions of responsibility and controllability. It is possible

that the addition of being “at fault” for one’s illness increased the relevance of this construct, strengthening the relationships with pity and anger; this interpretation is supported by a test of the attribution model in which blame was measured using the same constructs that we did, and found similar results to ours; that blame was positively associated with avoidance and endorsement of coercive treatment (Corrigan et al., 2003). Our study replicated these results. Finally, in two previous studies, Corrigan and colleagues (2002, 2003) found that anger was associated with less of a desire to help; our study also replicated these results.

### **Limitations**

A few limitations specific to this study should be noted. Although participants recruited through Mturk are shown to be significantly more representative of the US population than samples recruited within university student populations (Buhrmester et al., 2011), our sample does not represent the general population. In addition, race, gender, and other demographic factors significantly impact assumptions about mental illness (Crisp et al., 2000; Rao et al., 2007). Given that our sample was primarily white and non-Hispanic, our results may not generalize to other populations. In addition, the vignettes used in this study were about a woman with a mental illness; women are generally seen as less dangerous and provoke less fear (Harris & Miller, 2000), which may have affected the relationships found in this study. Future research should examine public stigma at the intersection of diagnosis and gender, particularly in relation to attributions of dangerousness. Finally, this research was not longitudinal, so although we make hypotheses about the direction of relationships in the model, readers should interpret these with caution.

Existing research demonstrates that diagnosis is an important predictor of public mental illness stigma. Previous examinations of the Attribution Model have focused primarily on public

stigma against schizophrenia (i.e., participants read a vignette about a man with schizophrenia prior to completing the Attribution Questionnaire) (Corrigan et al., 2003). By aggregating responses to the Attribution Questionnaire across three different diagnoses (i.e., participants responded to vignettes about anorexia nervosa, schizophrenia, and depression) and examining relationships between model constructs, we believe that this work expands the generalizability of the Attribution Model. However, in this study, our sample size was too small to effectively examine differences in the relationships between model constructs according to diagnosis. This is an important area for future research.

### **Conclusion**

Overall, our results support the Attribution Model of mental illness stigma, suggesting that attributing personal responsibility and dangerousness to people with mental illnesses is associated with decreased pity, increased anger, a lower desire to help or socially engage, and increased support for coercive treatment. In addition to suggesting changes in the measurement of public mental illness stigma, these results confirm previous research on the Attribution Model and suggest that beliefs about dangerousness and feelings of fear (rather than attributions about personal responsibility) may be most important to intervene upon when designing interventions to decrease mental illness stigma.



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Table 1. Measurement model fit for the three tested models

<b>Model</b>	<b>Number of factors</b>	<b>Constructs</b>	<b>Number of AQ items</b>	<b>AIC</b>	<b>BIC</b>	<b>CFI</b>	<b>RMSEA</b>	<b>SRMR</b>
<i>Corrigan, 2003</i> (initial development of the measure)	6	Personal responsibility, fear, pity, anger, helping, coercion/segregation	21	25844.73	26141.77	.93	.08	.06
<i>Brown, 2008</i>	6	Personal responsibility, fear/dangerousness, empathy, negative emotions, help/interact, forcing treatment	26	32107.88	32462.04	.92	.08	.07
<i>Current version of the AQ-27*</i>	9	Blame, dangerousness, fear, pity, anger, help, segregation, avoidance, coercion	27	33511.05	33956.60	.92	.08	.06
<i>Final Measurement Model</i> (Modified from <i>Corrigan, 2003</i> )	6	Personal responsibility, fear/danger, pity, anger, help/interact, coercive treatment	21	25844.73	26141.77	.95	.07	.05

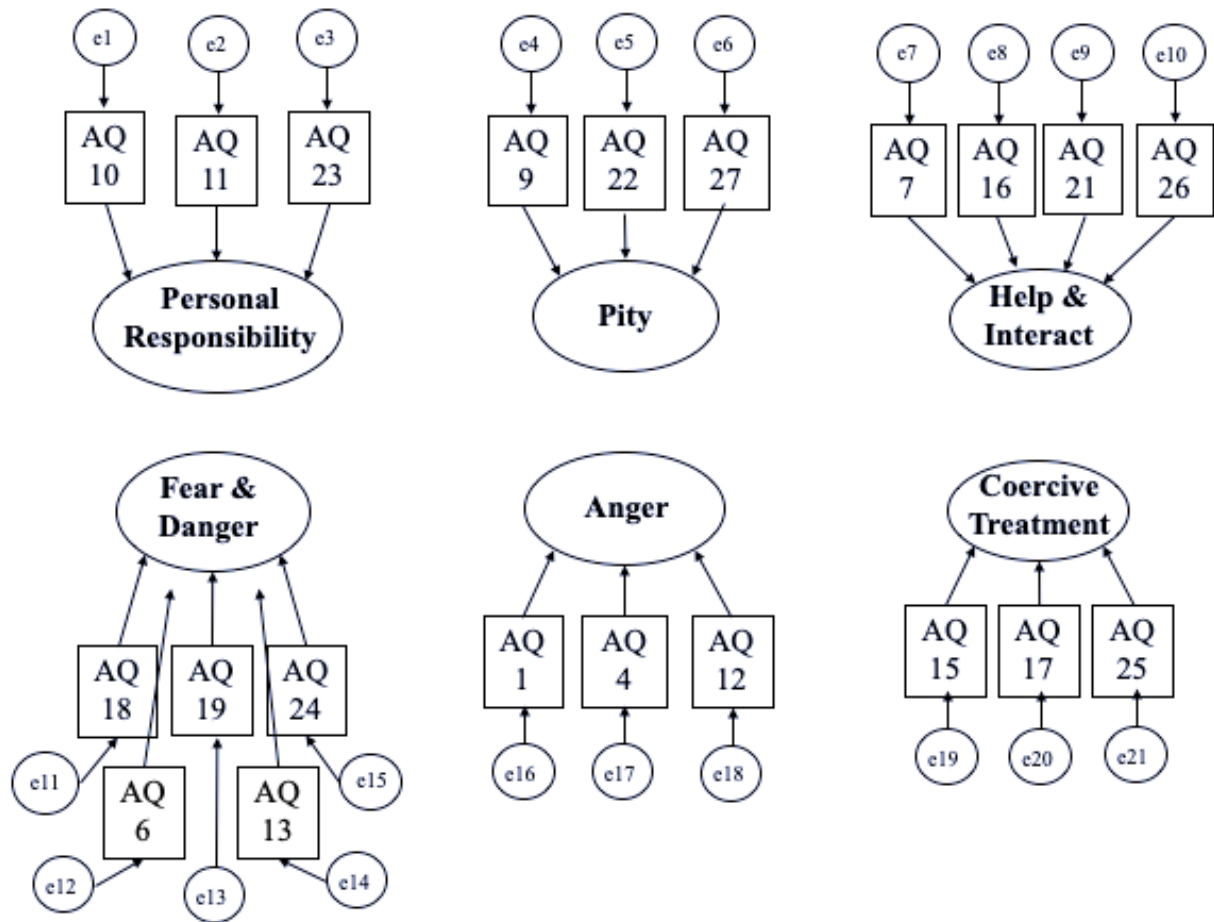
\*Note: the latent variable covariance matrix was not positive definite due to negative residual variance in the indicator variables for the latent variable *fear*.

Table 2. Standardized and unstandardized factor loadings in the final measurement model

Factor (internal consistency)		Unstandardized factor loading (standard error)	Standardized factor loading
Personal Responsibility ( $\alpha = .80$ )			
	AQ 10	1.00 (.00)	.93 (.02)
	AQ 11	.59 (.06)	.57 (.04)
	AQ 23	.81 (.05)	.73 (.03)
Anger ( $\alpha = .920$ )			
	AQ 1	1.00 (.00)	.87 (.02)
	AQ 4	1.00 (.05)	.89 (.01)
	AQ 12	.99 (.04)	.92 (.01)
Pity ( $\alpha = .80$ )			
	AQ 9	1.00 (.00)	.59 (.04)
	AQ 22	1.58 (.17)	.99 (.04)
	AQ 27	.89 (.09)	.62 (.04)
Help & Interact ( $\alpha = .78$ )			
	AQ 7	1.00 (.00)	.67 (.04)
	AQ 16	1.14 (.11)	.76 (.03)
	AQ 21	.84 (.09)	.62 (.04)
	AQ 26	.99 (.09)	.71 (.04)
Fear/Danger ( $\alpha = .96$ )			
	AQ 6	1.01 (.04)	.89 (.01)
	AQ 13	1.00 (.00)	.91 (.01)
	AQ 18	1.03 (.03)	.94 (.01)
	AQ 19	1.03 (.04)	.93 (.01)
	AQ 24	1.01 (.04)	.87 (.01)
Coercive Treatment ( $\alpha = .92$ )			
	AQ 15	1.00 (.00)	.92 (.01)
	AQ 17	.96 (.04)	.91 (.01)
	AQ 25	.93 (.04)	.86 (.02)

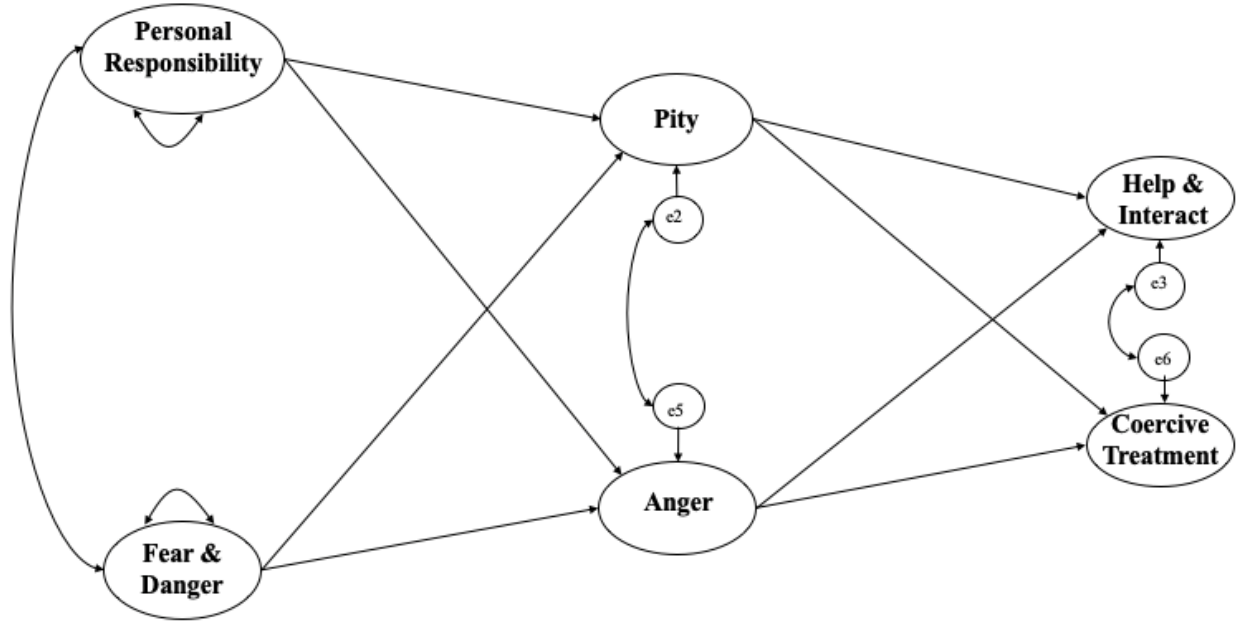


Figure 1. Final measurement model



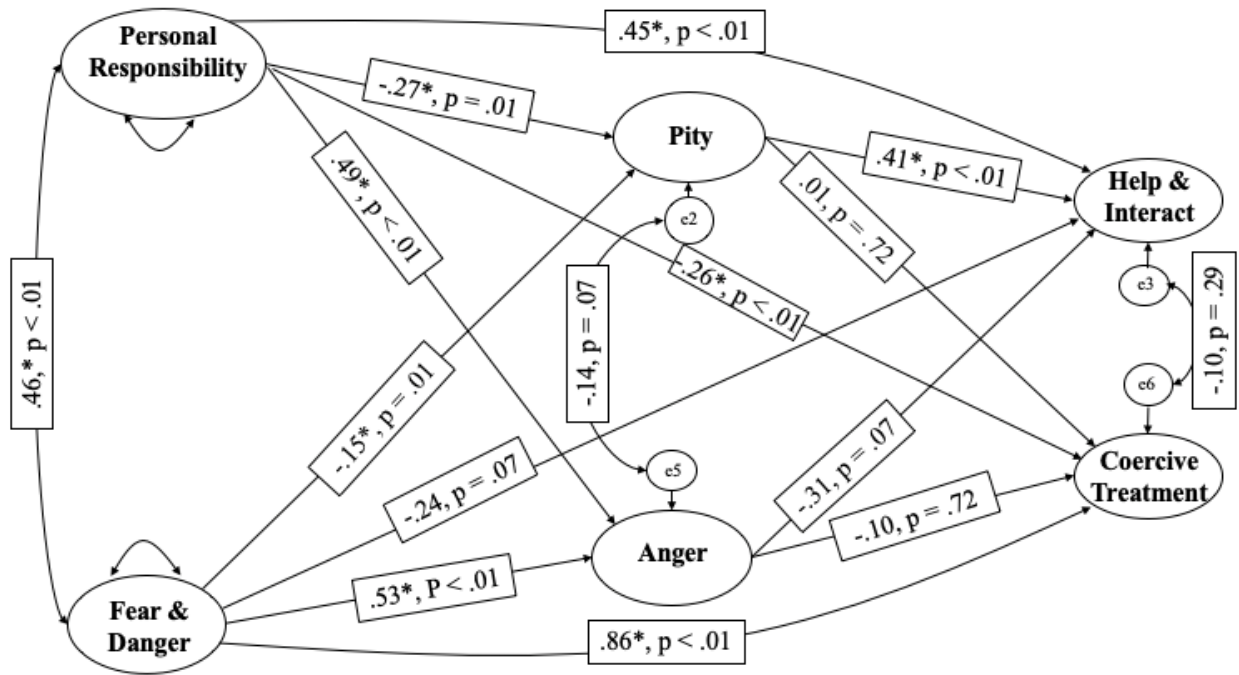
Final version of the measurement model that fit data best. The correlations among the latent factors are estimated in the model but, for simplicity, are not shown in the figure.

Figure 2. Tested structural model



Initial structural model tested via latent variable path analysis

Figure 3. Final structural model with path coefficients



Final structural model with paths and standardized path coefficients.