Can a negative religious causal attribution of mental illness affect the phenomenon of public stigma?

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Abstract

This study assessed, **through an exploratory approach,** how religion-based negative causal attributions of mental illness may be associated to stigmatising attitudes and behaviours that contribute to public stigma **in an Italian convenience sample**. All participants ($N = 311$; average age = 33 years, 38.6% male) completed a set of three questionnaires: Religious Beliefs and Mental Illness Stigma Scale, the Attribution Questionnaire 27 and the Mental Health Knowledge Schedule. The study found support for two specific models. The Responsibility model involved four key predictors: participant age, the influence of religious beliefs in everyday choices, religious beliefs about the connection between morality/sin and mental illness and having participated in seminars about mental illness stigma. The Dangerousness model involved three exogenous variables: participating in mental illness stigma seminars, religious beliefs about morality/sin and mental illness, and participant age. This study allows the identification of variables that seem to activate or attenuate the models of "Personal Responsibility" and "Dangerousness".

Introduction

The concept of "stigma" has focused anthropologically on individuals who are discredited and marginalized by mainstream society, often facing social exclusion (Evans-Lacko et al., 2016). Historically, people were stigmatized for various reasons, such as violating important cultural norms or behaving in ways considered taboo, or by posing an existential threat to the survival of the group by being untrustworthy (and potentially traitorous) or by being seen as a disease-carrier (Kurzban & Leary, 2001; Pianigiani, 1907). However, Erving Goffman embedded this term solidly within the context of sociological and psychological research, defining it as *any* attribute (physical, moral, intellectual, tribal, religious or ethnic) that negatively distinguishes an individual from the rest of the population (Goffman, 1963). Goffman studied a specific stigmatizing attribute, mental illness, by focusing on the institutions appointed to "contain and isolate" all those affected by mental health conditions: the asylum (Goffman, 1961). Studies on mental illness stigma have increased over time (Evans-Lacko et al., 2014) allowing a greater understanding of the phenomenon and its negative outcomes, such as disadvantage in employment, high dropout rate from school, low levels of well-being and empowerment, and difficulty in managing and maintaining personal relationships (Evans-Lacko et al., 2016).

Understanding Cultural Reactions to Mental Illness

Many researchers who study the diverse cultural reactions to persons with mental illness have focused on two key psychological constructs in their theoretical models: attributions and perceived dangerousness (Corrigan et al., 2003). Both theoretical models follow a general framework, such that beliefs (stereotypes) activate emotional reactions (prejudice) that then motivate specific behavioural responses (discrimination) (Corrigan & Watson, 2002). *Attribution theory* (Corrigan, 2000) suggests that if persons with mental illness are considered responsible for their disorder, then perceivers will likely feel anger toward them, be less likely to help them, and

ultimately endorse extreme measures such as forced treatments (i.e., *coercion*) and institutionalization or other forms of social exclusion (i.e., *segregation*). However, if these individuals are considered innocent victims of the disorder, then they will evoke feelings of pity and a desire to help in perceivers (see also Bernard Weiner's theory of how perceived responsibility generally influences moral judgements and emotions; Weiner, 1985, 1995). Even though considerable strides have been made in the scientific and medical understanding of the components underlying mental illnesses, the majority of which are beyond the individual's control, unfortunately cultural beliefs in responsibility persist and facilitate interpersonal and structural stigma.

The theory of *dangerousness* (Corrigan, 2000; Paterson & Neufeld, 1987) provides a complimentary model of understanding mental illness stigma, suggesting that those who perceive persons with mental illness as dangerous will fear and avoid them. Previous research has found that people commonly believe there is a link between mental illness and dangerous or violent behaviours (Corrigan et al., 2005; Link et al., 1999). These beliefs have their strongest influence when people are forced to make quick reactions, are distracted, or otherwise unmotivated to control their prejudices (Pryor et al., 2004; Wesselmann et al., 2012). Ultimately, these beliefs contribute to the general desire to marginalize and socially exclude persons with mental illness in a variety of ways, such as strained or reduced interpersonal relationships (Feldman & Crandall, 2007; Martinez et al., 2011; Pryor et al., 2010), housing (Corrigan et al., 2006), and employment opportunities (Webber & Orcutt, 1984).

Figure 1

There are other potential variables to incorporate into these two theoretical models. One example is *spiritual stigma*, characterized by negative religion-based causal attributions of mental illness. Research suggests different beliefs compromise spiritual stigma: demonic possession (mental illness as possession or influence of a demonic or malignant presence), sinful

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lifestyle/divine punishment (mental illnesses is viewed as a result of a sinful lifestyle or as divine punishment), prayer/faith (persons who have mental illness are simply not relying on their faith in God or are not praying for healing effectively) and attitudes about treatment (strong scepticism towards medical science which is considered ineffective or manipulative) (e.g., Lloyd, 2021; Stanford, 2007; Wesselmann & Graziano, 2010). Such negative attributions for mental illness can have dramatic consequences on the lives of persons with mental illnesses, such as loss of trust in health services and health professionals and a focus solely on spiritual forms of treatment (e.g., exorcism, purification rites and prayer); poor adherence to medical treatment; little or no participation in support groups or self-help groups; and progressive closure in a small circle of people who reinforce the stereotypes and negative attributions already present (Ayvaci, 2016; Das et al., 2018; Pingani et al., 2020; Wamser et al., 2011).

Most of the research on spiritual stigma has occurred in the United States of America and England. Thus, it is imperative that researchers assess these topics in other cultures to examine both the generalizability of the phenomena and explore culture-specific nuances. Recently, researchers investigated these topics in Italy by translating an established measure of spiritual stigma and administering it to a community sample (Pingani et al., 2021). These data demonstrated a similar pattern as research in English-speaking samples. Specifically, attributional beliefs focused on the perception that mental illnesses were related to *immorality and sinful behaviors*, as well as the degree to which they have *spiritual causes* (e.g., demonic possession) and are receptive to *spiritually-oriented treatments*. Further, these two attributional factors correlated with other measures relevant to mental illness stigma from a secular perspective (e.g., perceived dangerousness; see also Wesselmann & Graziano, 2010). Additionally, a recent paper by Magliano and colleagues explored views of Catholic priests about schizophrenia and depression in Italy. Though the majority of priests interviewed reported mental illnesses were caused by psychosocial factors such as traumatic events (55.9%), family conflicts (52.2%), and stress (51.1%), some priests

reported magic (18.1%) and evil possession (10.2%) as viable causes (Magliano et al., 2021). These two studies provide a valuable step toward investigating these phenomena in Italy, yet further research is necessary.

Current Research Goals

The main goal of this study is to test, **in an Italian convenience sample,** by means of structural equation modelling, the hypothesis that religion-based negative causal attribution of mental illness may be associated to secular-based stigmatising attitudes and behaviours, thus increasing the phenomenon of public stigma. Specifically, we assessed how these religious-based beliefs about mental illnesses may influence the secular-based belief measures (i.e., perceived responsibility and dangerousness) that contribute to public stigma. We used the attributions and dangerousness theoretical models as our hypothesized models, given the substantive amount of research that has replicated these structural models in various cultural contexts. We then treated the two religious beliefs factors as exogenous variables acting on the secular-based variables. It may be technically possible that secular-based stigmatizing beliefs ultimately **could be associated with** spiritual-based stigmatizing beliefs, it is more likely that the religious beliefs arise first, or at least in tandem. One's religion can be considered a cultural system from which informs other thoughts, feelings, and behavioural tendencies (e.g. Cohen, 2009; Johnson et al., 2011). Previous research on a U.S.-based college sample found that both religious-based stigma factors predicted scores on the secular stigma variables of perceived danger and perceived controllability (and presumably responsibility for) of one's symptoms, though the morality/sin factor had the stronger effects between the two (Wesselmann & Graziano, 2010). That was based on only one dataset in a specific context that may not generalise to other cultural settings or non-student samples. Further, there is some statistical overlap between these two factors, and it is possible that one factor may dominate in a full model. As such, we had no a priori hypotheses about which of the two religious-based

stigma factors would relate to the secular stigma variables and to what degree, so we allowed them to vary in all possible combinations to explore which model would emerge as best fit.

Additionally, we explored other potential factors that may be relevant to these models. We treated each of them as exogenous variables that may influence the core theoretical models of attributions and dangerousness. Specifically, we asked participants to indicate the importance of religious beliefs in their daily lives; it follows that the impact of their religious beliefs about mental illness should be related to how important their beliefs are to them generally.

Further, we investigated the degree to which exposure to educational events focused on combating mental illness stigma relates to the established stigma variables. Anti-stigma educational programs often focus on changing stigmatizing beliefs to influence the emotional and behavioural components (Corrigan et al., 2002; Corrigan et al., 2001; Penn & Link, 2002), though it is possible these programs may influence each of these three components in complex ways. Further, previous research found that personal exposure to persons with mental illness reduced ratings on the morality/sin belief factor and on perceived danger, but only for people who indicated they had close contact with that person; these differences were not found for individuals who had only minimal experience (Wesselmann & Graziano, 2010). Regular exposure to a person with mental illness is one component of anti-stigma campaigns, but education is also necessary. As such, we assessed any potential connections using a validated and detailed scale.

Finally, we investigated any potential relation between the stigma variables and age, as younger people generally are less likely to endorse stigmatizing beliefs about mental illness (Angermeyer & Matschinger, 2004; Gaebel et al., 2002; González-Sanguino et al., 2019), and recent data suggest they may respond most favourably to anti-stigma education programs (Wong et al., 2018). As with the two types of religious beliefs about mental illness, we allowed the potential relations between each of these exogenous variables to vary to investigate multiple possibilities for finding the best explanatory fit.

Methods

Sample Recruitment

Participants represent a convenience sample of 311 individuals **recruited in public places (shopping centres, markets, squares, cinemas, etc.)** in the Provinces of Modena and Reggio Emilia**. No stratification was applied in the recruitment. The inclusion criteria were being 18 years of age or more and to provide an informed consent for participation. The sample is the same used** in the Italian language validation of the Religious Beliefs and Mental Illness Stigma Scale (I-RBMIS) (Pingani et al., 2021).

Measures

All participants completed a socio-demographic data sheet and a set of three questionnaires: the Italian version of the Religious Beliefs and Mental Illness Stigma Scale (I-RBMIS) (Pingani et al., 2021), the Attribution Questionnaire 27 (AQ-27-I) (Pingani et al., 2012) and the Mental Health Knowledge Schedule (MAKS-I) (Pingani et al., 2019). The following variables were collected using the socio-demographic data sheet: age (in years), sex (male/female), education level (Primary school diploma, Middle School diploma, High school graduation, Bachelor's degree or above), participation in scientific events on the topic of stigma in mental health (yes/no), presence of first or second degree relatives who have a mental illness (yes/no), frequency of participation at rites and/or services of the professed religious belief (Likert scale from 0 – "I never attend" to 3 – "I always attend religious services / rituals of my religion") and the influence of religious beliefs in the choices of respondent's life (Likert scale from 0 – "No, absolutely no" to 3 – "Every choice of my life is influenced by my religious belief").

The I-RBMIS is a self-administered questionnaire useful to evaluate religious beliefs about mental illness developed in English (Wesselmann et al., 2015; Wesselmann & Graziano, 2010) and

validated in Italian language (Pingani et al., 2021). It is composed of 16 items on a nine-point Likert scale (from 1: "Strongly Disagree" to 9: "Strongly Agree") and divided into two subscales: Morality/Sin (Cronbach's alpha: 0.80; **e.g., "Mental illness results from an immoral or sinful lifestyle"**) and Spiritually-Oriented Causes/Treatments (Cronbach's alpha: 0.73; **e.g., "God's healing is all a person suffering from a mental illness needs - nothing else should be relied on"**). These two factors are correlated positively, yet past research has demonstrated differential relations with other variables related to secular stigma and endorsements of types of social support (spiritual or secular) to provide persons with mental illness (Wesselmann et al., 2015; Wesselmann & Graziano, 2010). As such, we retained the two-factor structure originally proposed in both the English and Italian versions. A high score on the two subscales corresponds to higher levels of stigmatizing religious beliefs toward mental illness.

The AQ-27-I (Corrigan et al., 2002, 2003; Pingani et al., 2012) is a self-administered questionnaire useful for assessing secular-based stigmatizing attitudes toward mental illness in the general population: it is a 27-brief statement questionnaire about an imaginary patient called ''Harry'', a 30-year-old single man with schizophrenia. Individuals who complete the measure are asked to rate how much they agree with each statement made about ''Harry'' on a Likert scale from 1 (not at all) to 9 (very much). It is structured into nine subscales: Personal Responsibility (e.g., "I would think that it was Harry's own fault that he is in the present condition."), Pity (e.g., "I would feel pity for Harry."), Help (e.g., "I would be willing to talk to Harry about his problems."), Anger (e.g., "How irritated would you feel by Harry?"), Coercion (e.g., "If I were in charge of Harry's treatment, I would require him to take his medication."), Segregation (e.g., "I think it would be best for Harry's community if he were put away in a psychiatric hospital."), Dangerousness (e.g., "I would feel threatened by Harry."), Fear (e.g., "Harry would terrify me.") and Avoidance (e.g., "If I were an employer, I would interview Harry for a job."). A high score in the subscales correspond higher levels of stigmatizing attitude toward mental illness.

The MAKS was originally developed in English language by Evans-Lacko and colleagues (Evans-Lacko et al., 2010) and was validated in Italian language obtaining good psychometric results (Pingani et al., 2019). The 12 items of the MAKS are scored on a Likert scale (from 1: "Strongly Disagree" to 5: "Strongly Agree"). "Don't know" is coded as neutral (value of 3). The MAKS questionnaire is articulated into two parts. The first six statements are related to mental health knowledge, and it gives the possibility to calculate a total score (e.g., "People with severe mental health problems can fully recover."): **the higher the score, the greater the knowledge of mental illness.** Items from 7 to 12 refer to six clinical conditions to identify the levels of recognition and familiarity with those clinical situations. (e.g., Participants are presented with a description of someone presenting concerns and asked to indicate "whether you think each condition is a type of mental illness" and provided several options to choose from).

Statistical Analysis

Descriptive statistics, including frequency distributions, means and standard deviation were computed for all variables collected in the socio-demographic data sheet. The average score obtained in the administered questionnaires are presented using the mean and standard deviation. **We used** structural equation modeling (Westland, 2015) **to explore the best-fitting models that describe how** the process of public stigma is affected by stigmatizing religious beliefs towards mental illness: the responsibility model (divided into two sub-models) and the dangerousness model (Figure 1) of the AQ-27-I were used as endogenous variables, while the socio-demographic variables and the scores of I-RBMIS and MAKS-I were used as exogenous variables. Model fit was assessed using the following indices: $\chi 2$ (>0.05), comparative fit index (CFI$\geq$0.90), root mean square error of approximation (RMSEA$\leq$0.08) and normed fit index (NFI$\geq$0.95) (Bollen & Long, 1993).

<center>**Results**</center>

Sample Recruitment and Questionnaire Administered

Three-hundred and eleven people agreed to participate in the study and provided informed consent for their data to be used/published in the research. The mean age of the sample was 33 years (minimum=18; maximum=82; SD=±15.1 and 38.6% of the respondents were male. 61.4% of respondents have a high school diploma and 18.7% participated in seminars or conferences related to the issue of stigma in psychiatry. 7.4% of the interviewees never attend to services of their religion, while 24.1% attend them assiduously (following the prescriptions of their own religious beliefs). 4.2% of respondents take important decisions without being influenced by their religious beliefs, while 22.51% believe that their choices are deeply influenced by them. The socio-demographic characteristics of the sample and the mean total score obtained for the three questionnaires (I-RBMIS, MAKS-I and AQ-27-I) are reported in Table 1 **and 2**.

<center>*Table 1 **and Table 2***</center>

Modeling the Process of Public Stigma through Religious Causal Attribution of Mental Illness

We conducted several structural equation analyses allowing different prediction paths for each exogenous variable. The analyses produced three models that best described our data based on the fit indices (Figure 2, 3 and 4). The Morality/Sin factor of the I-RBMIS measure was the only factor of the two that emerged in these models; thus, we refer specifically to that factor in the models when referencing I-RBMIS.

The structural equation modelling of the three different models is described in Table 3. Good models fit was obtained for Sub-model "A" of the Responsibility Model and for the Dangerousness Model. The fit indices of Sub-model "B" of the Responsibility Model do not meet the general threshold of acceptability (X^2, CFI, RMSEA and NFI).

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Table 3

The "A" sub-model (Figure 2) of the Responsibility Model is characterized by four exogenous variables: to be influenced by religious beliefs in life choices **(-0.62; $p = 0.009$)**, the I-RBMIS score, age and having participated in seminars about stigma and mental health. Specifically, with increasing age there is an increase in the feeling of pity (0.07; $p < 0.001$) and willingness to help people with mental distress (0.006; $p = 0.001$). Instead, there is a direct association between the I-RBMIS score and the belief that the responsibility for mental illness is in the person him/herself (0.14; $p < 0.001$) and the feeling of pity towards them (0.18; $p < 0.001$). Finally, having participated in seminars or conferences about stigma is associated with lower willingness to help people with mental illness (-3.30; $p < 0.001$).

Figure 2

Sub-model "B" (Figure 3) is characterized by the same four exogenous variables of the "A" sub-model. Age is inversely associated with the desire to coerce people with mental distress (0.05; $p < 0.001$) - for example, forcing medication taking - while participation in awareness events about the stigma towards mental illness (-2.63; $p < 0.001$) is associated with a lower desire to confine patients to mental hospitals. An increase of I-RBMIS score is associated with a greater feeling of anger (0.14; $p < 0.001$) and a greater desire to segregate people with mental health problems in care facilities (0.13; $p < 0.001$).

Figure 3

The Dangerousness model is defined through three exogenous variables: participating in events about stigma is associated with a lower stereotype of danger related to mental illness (-1.21; $p = 0.004$); the increase in I-RBMIS is associated with an increase in the perception of danger (0.07; $p = 0.003$) and of the fear associated with it (0.11; $p < 0.001$); advancing age is associated with a greater avoidance people with mental illness increases (0.06; $p = 0.002$).

Figure 4

Discussion

This present study assessed how religion-based negative causal attributions of mental illness (defined by the two factors of I-RBMIS: Morality/Sin and Spiritually-Oriented Causes/Treatments) may be associated to stigmatising attitudes and behaviours that contribute to public stigma. We specifically examined how the I-RBMIS factors mesh with the extant secular variables in theories of public stigma; the Responsibility Model and the Dangerousness Model (Corrigan et al., 2005). Among the assessed variables, the one most consistently represented in the three best-fitting models is the score of "Morality / Sin" subscale of the I-RBMIS questionnaire. **However, note that the Spiritually-Oriented Causes/Treatments subscales is not included in any of them (because none of the models that were supported by the fit statistics included this factor)**: thinking that mental illness is associated with a life characterized by sin or moral laxity is associated with the perception that people with mental health conditions are dangerous **hypothetically** causing greater fear, with the view that holds the person with mental illness as responsible for their condition, and with the attitude of pity and anger derived from it. An "ethical justice" principle seems at work here, operating in terms of action-consequence: If mental illness is a consequence of immoral conduct, then the only person responsible therefore becomes the individual with mental illness (Bruner, 2000).

We found that the attribution of responsibility for having a mental illness to the person is also inversely proportional with the influence that one's religious belief has in the choices of daily life **(0.62; *p* = 0.009)**. We can only speculate that one's religious beliefs are one of many factors that influence daily choices. Furthermore, many religions and philosophic systems of thoughts welcome within themselves the "ethics of reciprocity" (Paden, 2003) which can be summarized by the Gospel

verse: "So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets" (Matthew 7:12; New International Version).

Other studies have shown that participation in scientific events related to stigma is associated with greater knowledge of mental illness (Pingani et al., 2019) and to lower avoidance towards people with a mental disorder (Pingani et al., 2016). In this study, on the other hand, participation in scientific events dedicated to stigma was associated with a reduction: In the sense of danger linked to mental illness **(-1.21; $p = 0.004$)**, in the willingness to provide help **(-3.30; $p < 0.001$)** and a decrease in the propensity to use segregating strategies (e.g., forced hospitalization) for people with mental illness **(-2.63; $p < 0.001$)**. These results **are interesting but must be probed directly in future research. Our measure of participants' involvement in mental health-related seminars is general and does not assess the specific contents of these seminars. Further,** if participation in events on stigma is theoretically associated with an "anti-stigma effect" it is necessary to ask how long it can last over time (Gronholm et al., 2017; Hanisch et al., 2016; Pingani et al., 2020). Furthermore, it can be helpful to reflect on the motivations that led a person to attend that event dedicated to the theme of stigma: One's own personal sensitivity to the theme (for example for family or study reasons) can influence the interest in the topic and therefore increase the effect associated with the reduction of stigma towards mental illness (Committee on the Science of Changing Behavioral Health Social Norms et al., 2016; Moscato et al., 2011).

The last variable to have shown a significant association in the proposed models is age, whereby older age seems to be associated with more stigmatizing attitudes. At the same time older age was associated with a greater sense of pity **(0.07; $p < 0.001$)** and greater desire to help people with mental illness **(0.06; $p < 0.001$), which could perhaps be due to benevolent paternalism (Deegan, 2000)**. Interestingly, in relation to age, Mackenzie and colleagues (Mackenzie et al., 2019) in their recent study on a population of 5712 Canadians ranging in age from 18 to 101, found that older participants had the most positive help-seeking attitudes for mental illness concerns.

We also note that the MAKS-I did not appear as an exogenous variable in any of the final emergent models. We have no clear answer for why this may be. It may be a result of using a convenience sample or perhaps the wide age range of participants (18 – 82). Regardless, future research should investigate this issue.

This study has some limitations. First, caution is required when interpreting **possible** causal pathways using cross-sectional data. Although the models that emerged from our data converge with previous research in both English-speaking and Italian-speaking contexts, future research should build upon our findings using longitudinal methods to test these models directly. Further, we assumed that the religious-based stigma variables would predict the secular-based variables, as religion can be considered a broad cultural variable that informs a person's worldview, subsequently influencing more specific beliefs and behaviors (e.g. Cohen, 2009; Johnson et al., 2011). However, it is possible that the religious-based and secular stigma beliefs have reciprocal effects; this could only be examined empirically with longitudinal methods **in future studies**.

Second, Johnson-Kwochka and colleagues (2021) recently argued the model of "Personal responsibility" can be revised by combining the "segregation" and "coercion" subscales of the AQ-27, as well as the "fear" and "danger" subscales. The AQ-27-I (Pingani et al., 2012) used in the current study was based on the original AQ-27 theoretical model. Future research using the AQ-27-I should investigate how the models established in the current study compare to these alternative models.

Third, we used a convenience sample from two provinces and is not representative of Italian general population. Further, the average age of our participants was lower than that of the Italian population (33.01 vs 44.40) and the male population of the sample (38.59%) was lower than in the general Italian population (48.37%) (Istituto Nazionale di Statistica, 2019). Thus, future research should obtain data from a broader range of Italian provinces and demographic categories.

Fourth, spiritual beliefs develop differently based on the specific religious denomination of the individual (Moscato, 2017), with some beliefs being more relevant to denominations than others. For example, charismatically-oriented Christian denominations (e.g., Pentecostal) would be more likely to endorse faith healing practices than mainline Protestant or Roman Catholic Christians, and this difference would likely be reflected in the Spiritually-Oriented Causes/Treatments factor. We did not build in a denominational factor into our current study because the denominational breakdown (Roman Catholic, Muslim, Jewish, Jehovah's Witnesses, etc.) in our sample was imbalanced and thus any differences would be difficult to interpret.

Finally, we note that an individual's religious beliefs can be dynamic and change according to numerous different variables: trauma, affective characteristics, cognitive styles, family, social conditions, (physical and mental) health conditions and many others. The results obtained in this study do not allow us to consider the above mentioned factors which may influence the development of stigmatizing beliefs (whether spiritual or secular), or even spiritual beliefs broadly (Pinelli, 2018). Relatedly, it is interesting that only a main effect of religious importance emerged in the models. One might presume that one can hold specific religious beliefs about mental illness, but beliefs may not have as much of an effect on their perceptions, feelings, and behaviors toward persons with mental illness if their religious beliefs generally are not that important to them. However, this study used only a single-item measure of religious importance and it may be that a more nuanced, conceptually-grounded measure would support such a relation.

Future research could assess the importance of religious variables using other measures, such as intrinsic religious (i.e., the degree to which individuals consider their beliefs of central importance to their self-concept and daily lives, Allport & Ross, 1967), or one's self-reported commitment to their religious identity (Wesselmann et al., 2016; Worthington et al., 2003). Such research would have implications for mental health settings, both secular and pastoral. By understanding how individuals' general religious orientation shapes their specific beliefs about

mental illness, mental health experts, clergy, and community members will know better how to encourage religious individuals to seek out and have confidence in mental health services (Ayvaci, 2016; Pingani et al., 2021; Wamser et al., 2011).

Conclusion

There is a paradox in literature about the link between mental illness and spirituality/religiosity: on one side some types of religiosity can act reinforcing stigmatizing attitudes toward mental illness (fundamentalist thinking, tribalism, misattribution of psychopathology and traditional ways of understanding) (Peteet, 2019); on the other side several studies have shown a positive association between religiosity and mental health (being religious is associated with greater hope, increased sense of meaning in life, higher self-esteem, optimism and life satisfaction) (Dein, 2018). This complexity therefore requires a twofold effort by both parties involved: healthcare professionals working in the context of mental health and the leaders of different religious beliefs. An accomplishment in this direction is represented for example by the book *Mental Health - A Guide for Faith Leaders* (American Psychiatric Association Foundation, 2016) jointly published by the American Psychiatric Association Foundation and the Mental Health and Faith Community Partnership Steering Committee. However, this dialogue must also be supported with evidence and research that try to define the stigma process and the variables that influence it. In this study, the models of "Personal Responsibility" and "Danger" identified different variables that seem to activate (I-RBMIS Morality/Sin score) or attenuate (participation in seminars or conferences related to the issue of stigma and the influence of one's religious belief on life choices) stigma related attitudes towards people with mental illness. Future longitudinal studies needed to confirm these findings in order to tailor and test appropriate interventions. Finally, future research needs to investigate the nature and structure of religious beliefs about mental illness in diverse cultural contexts. These beliefs likely will differ across religious denominations and may

even differ within a specific denomination as it exists in different cultural contexts. We believe this will be the biggest and most exciting challenge for this research area going forward.

<div align="center">**Declaration and ethics statements**</div>

Ethics Approval

According to the Internal Review Board, the ethical approval for this study was not necessary because it did not involve cases nor patients: the questionnaires used were administered to general population and do not produce diagnosis nor allow the definition of psychopathological conditions. Detailed information on the study was given to each participant and consent was asked also for processing of personal data. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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Data Availability

All data used for this study are available upon request addressed to the corresponding author.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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