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A Multinational Study of the Etiology and Clinical Teleology  
of Moral Evaluations of Patient Behaviors

By

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School of Community & Global Health

Claremont Graduate University

2020



## **Approval of the Dissertation Committee**

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Anna Yu Lee as fulfilling the scope and quality requirements for meriting the degree of Doctor of Philosophy in Health Promotion Sciences with a Concentration in Biostatistics.

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## **Dedication**

This research is dedicated to health professionals who work with patients with behavioral disorders. Thank you for your courageous work in supporting and sustaining life. Thank you for remaining open to ever-unfolding perspectives, continually striving to increase your knowledge and skills, and for providing hope to your patients and communities.

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## **Main Introduction**

### **Note to the Reader**

The title of this dissertation (“A Multinational Study of the Etiology and Clinical Teleology of Moral Evaluations of Patient Behaviors”) is a bit of a tongue twister, but is nevertheless effective in that it presents a succinct and comprehensive overview of the purposes of this study: (a) to introduce a tool for measuring moral evaluations of patient behaviors - a psychological construct hypothesized to be of relevance to clinical care, (b) to analyze some of this hypothesized entity’s causes (hence the word “etiology”), and (c) to analyze the pragmatic functioning of this entity in clinical settings (hence the word “teleology”).

I became interested in this research topic while looking for a new dentist. To provide some background: During my last dental appointment, I had experienced the awkward feeling (whether real or perceived) of being judged. Too embarrassed to return, I started skipping appointments. Three years passed, and despite the fact that I genuinely wanted a cleaning, I found myself unable to drag myself back for another appointment. Around year four, I began wondering about whether other people might similarly avoid in-person help, simply out of embarrassment or a fear of judgement? Alternatively, considering things from the perspective of the health professionals, how many feel frustrated, burnt-out, and unfulfilled in their work, in part or in whole due to feelings of contempt, disappointment, and/or frustration with their patients? A plethora of research clearly indicates that judgmentalism in practitioner-patient relationships is damaging in multiple ways. Nevertheless, a person’s moral values are critical to their identity; accordingly, some perspectives hold that moral convictions deserve to be expressed and in some cases are even expedient to the clinical process. This raises some

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fascinating questions. These include - how do clinicians' moral convictions affect the practitioner-patient relationship? Furthermore - can a clinician believe in the existence of moral absolutes (with regard to patient behaviors) but avoid the expression of said belief in a shaming or harmful manner? After continuing onward according to these lines of inquiry, I discovered that my questions were neither novel nor uncommon. On the contrary, they were simply iterations of a much broader group of questions that have long intrigued researchers from the fields of bioethics, medical education, psychology, philosophy, sociology, and theology.

### **Moral Evaluations of Patient Behavior (MEPB)**

The following set of studies introduce the concept of “moral evaluations of patient behavior” (MEPB) - a novel psychological construct that carries important implications for the fields of social psychology, philosophy, medicine, and public health. In brief, MEPB are defined as moral judgements of patients' behavioral actions and choices. Because a wide range of health-related behaviors, as well as the human body itself, are often discussed within a moral context – a rigorous empirical investigation of MEPB requires focus on a specific range of behaviors. As such, the studies in this dissertation focus on MEPB specific to ‘substance misuse’ - a category of health behaviors which is widely addressed in literature in the health sciences on stigmas and clinical burnout.

The question of whether or not, or to what extent, substance misuse either (a) is a matter that carries moral relevance or (b) whether it is appropriate to discuss the moral relevance of substance misuse in professional contexts, is a matter of controversy. Some perspectives hold that the labeling of addiction as at least partially a ‘moral’ condition is not advisable because to do so raises unresolvable debates (Allen, 2011; Koenig et al., 2012), triggers systemic discrimination against persons with addictive disorders (Global Commission on Drug Policy,

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2017), adversely affects clinical relationships/workplace professionalism (Barnett & Johnson, 2011; Knox & Hill, 2003; Pavlish et al., 2019), and interferes with advances in scientific research on the subject (Greenwald, 2009). Other perspectives highlight the relevance of human addiction to morality (Shweder et al., 1997; Thombs, 2009), noting the success of 12-step programs which emphasize a need for addicted individuals to take moral inventories of their lives (Wagener, 2020), and noting a need for more research on the effects of moral evaluations on a wide range of clinical factors and health outcomes (Hill, 2010). Contrary to the expectations of this author which are explained in the following manuscripts, the results of the following studies indicate certain benefits to conceptualizations of patients' behaviors as morally relevant, specifically among factors of health professionals' readiness to interact 'humanistically' with their patients. In this study, humanistic readiness refers to a cognitive-emotional state of readiness to interact with patients in a matter marked by cognitive, social, and emotional skill. Humanistic skills are often defined in the medical and nursing literature as 'non-technical' factors of clinical competence (Evans et al., 2018; Larkin, 1999; Pearson, 2011).

### **Development of Research Studies**

The hypotheses and interpretations of the following studies are based on research in the fields of moral psychology, social psychology, philosophy, and medicine. In order to minimize regional biases and maximize cross-cultural applicability, psychological models were informed by conversations with hundreds of health professionals in North America, Western Europe, and the People's Republic of China. These conversations occurred in hospitals, health clinics, university offices, living rooms, and over email, web meetings, and the telephone. Hypotheses and interpretations were informed by insights incurred during the course of clinical observations at the Service D'Addictologie CSAPA at St. Anne's Hospital in Paris, where addiction (with or

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without psychoactive substances) is treated using pharmacologic and psychotherapeutic approaches, and during the course of clinical observations in the Functional Neurosurgery Unit of Shanghai Jiao Tong University School of Medicine, where psychiatric disorders (with or without psychoactive substances) are treated using deep brain stimulation.

## Organization of the Dissertation

This dissertation is a collection of four studies which are listed in the table of contents. Collectively, these studies explore a hypothesized construct of MEPB specific to substance use disorders (SUDs) as a driver of health professionals' readiness to interact humanistically (i.e. with compassion, self-efficacy, and optimism) with patients with SUDs. This question is explored using quantitative survey data from a convenience sample of 524 health professionals (i.e. physicians, nurses, and other health professionals) from three culturally distinct areas of the world: California ( $n = 173$ ), urban France ( $n = 102$ ), and urban China ( $n = 249$ ).

Because of the distinct nature of the topics addressed in these studies, this research is presented in the form of four independent, standalone manuscripts. Studies 1 and 4 were conducted using multinational data from health professionals in California, urban France, and urban China. Studies 2 and 3 were conducted using data exclusively on health professionals in California. The reason that Studies 2 and 3 were limited to data from California is that these studies included analyses of authoritarianism (Study 2), religiosity (Study 2), and moral self-identity (Study 3), and the measures for these constructs were not included in the surveys distributed in urban France and urban China. Furthermore, moral self-identity has been shown to be culturally specific and not generalizable among Chinese populations (Jia & Krettenauer, 2017). Data were analyzed using analyses of variance (ANOVAs) and Welch's *t*-tests, confirmatory factor analyses (CFAs), and structural equation models (SEMs).

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### Content of Studies

Study 1 introduces the theoretical underpinnings of MEPB as a psychological and develops and psychometrically evaluates a measure which is used for its empirical evaluation using data gathered from health professionals in California, urban France, and urban China; results provide evidence for the psychometric quality of this measure. While weak invariance by country suggests cautionary interpretation of differences by country, attention is nevertheless drawn to differences in MEPB between health professionals by country, as well as to differences by age group and profession. Study 2 explores religiosity and authoritarianism as predictors of MEPB among health professionals in California, indicating that higher levels of religiosity and authoritarianism are associated with higher levels of MEPB. Study 3 compares the effects of moral evaluations of the *other* (as measured using the MEPB survey) and of the *self* (as measured using a tool for assessing moral self-image) among health professionals in California, to compare and contrast the effects of these factors on measures of health professionals' readiness to interact with patients humanistically (as assessed by survey tools which measure "compassion," "self-efficacy," and "optimism" towards patient care). Results of this study indicate that while MEPB is positively associated with optimism toward patient treatment and that moral self-image (MSI) is positively associated with both compassion toward patients with SUDs and self-efficacy for health professionals' ability to treat such patients, MEPB is negatively associated with self-efficacy toward health professionals' ability to treat such patients. Study 4 examines differences in MEPB on the same three outcome variables used in Study 3 (i.e. factors of "readiness to interact with patients humanistically") among health professionals in California, urban France, and urban China. Findings collectively suggest that while MEPB is positively associated with optimism towards patient treatment in all three countries - and in

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urban China is additionally positively associated with compassion toward patients with SUDs and self-efficacy in one's ability to treat patients with SUDs - in California MEPB is negatively associated with self-efficacy in health professionals' ability to treat patients with SUDs.

Collectively, the following studies indicate the following. There exists psychometric support for the survey tool that was created for the assessment of the hypothesized construct of MEPB among health professionals; furthermore, differences on this construct were found by age group, occupation, and country of residence. The survey tool for MEPB operates differently among health professionals in different countries; this finding supports the notion that people from differing cultures have differing notions about morality. In the California sample, results indicate that while moral judgements of patients' behavior carries mixed associations with factors of health professionals' readiness to interact humanistically with these patients, moral judgements of the self (or, moral self-image) have only positive associations with factors of this readiness for humanistic interaction; this finding supports the notion that having a healthy self-concept strengthens one's ability to support others. In all three countries, moral evaluations were positively associated with optimism toward treating patients, and in urban China, they were additionally positively associated with compassion and with self-efficacy. Given weak measurement invariance (i.e. differences in the operation of the measure of moral evaluations by country), more research is needed in this area. The current research provides a tool for examining research of just this nature, and most importantly suggests that morality does not need to be eliminated from perspectives of mental illness or addiction, but rather that more nuanced moral perspectives are needed. Future research may explore distinctions between moral appraisals and stigma, and associations between moral evaluations (both among health professionals and among patients) and clinical/health outcomes such as rates of relapse and recovery.

## Study 1 Abstract

Many debates in the fields of public health, public policy, and bioethics focus on questions about whether specific health behaviors should ever be framed or treated as moral issues. While these questions have been philosophically explored at length, an empirical examination of the implications and sequelae of ‘moral framings’ of patient behaviors would require a tool for their examination among a particular population. Since no assessment tool of this nature exists, this study introduces a novel measure intended to assess these moral framings, specifically as they pertain to substance use disorders (SUDs). The ‘moral evaluation of patient behaviors’ (MEPB) survey developed and evaluated in this study was tested on 524 health professionals (i.e. physicians, nurses, and other health professionals) in California ( $n = 173$ ), urban France ( $n = 102$ ), and urban China ( $n = 249$ ); results provide preliminary support for the psychometric quality of this tool. Demographic factors were investigated using analyses of variance (ANOVAs) and t-tests, with results suggesting that MEPB is higher among younger health professionals, nurses (when compared with physicians and other health professionals), and Chinese health professionals (when compared with French and American health professionals). In summary, this study introduces a measure for assessing MEPB, examines its psychometric qualities, indicates that MEPB items appear to measure a single latent trait that is partially invariant across countries, and provides cross-cultural information about demographic characteristics associated with MEPB. Future research may use the survey introduced here to explore causes and effects of MEPB, both among health professionals and their patients.

*Keywords:* bioethics, moral psychology, multicultural psychology, clinical competence, clinical perspectives, burnout, substance use disorders, behavioral disorders, medical ethics, nursing ethics



## STUDY 1: A MEASURE OF MORAL EVALUATIONS OF PATIENT BEHAVIOR (MEPB)

### **Study 1: A Quantitative Survey Measure of Moral Evaluations of Patient Behavior (MEPB) among Health Professionals in California, Urban France, and Urban China**

#### **The Importance of Moral Evaluations of Patient Behavior (MEPB)**

This study introduces the theoretical construct of “moral evaluation of patient behavior” (MEPB) – a psychological entity which refers to moral judgements of patients’ health-related behaviors (e.g. diet, exercise, sexual behavior, etc.). It is hypothesized that this construct is associated with a wide range of health outcomes, including to whom and how care is provided, and the mechanisms through which caregiving affects both patients and caregivers. While moral evaluations of the human body, health policies, and medical practice have long interested social psychologists, bioethicists, and philosophers (Cahill & Farley, 1995), to date there has been very little empirical investigation of moral evaluations regarding health behaviors. Studies of moral psychology have already explored moral motives (Janoff-Bulman et al., 2008), moral judgement (Greene, 2014), and moral foundations (Graham et al., 2013; Haidt & Kesebir, 2010), but there is a specific need for research on moral evaluations in health care, particularly as they relate to clinician well-being, healthcare relationships, and patient outcomes (Hill, 2010).

#### **Controversy over Moral Models of Addiction**

According to moral-relevance models, addiction is at least partially a characterological/spiritual weakness associated with free will and reflective of personal transgressions or spiritual indebtedness (Shweder et al., 1997; Thombs, 2009). These models provide a foundation for treatment approaches such as the 12-step programs, in which participants are taught to seek recovery through a process that includes taking a moral inventory of their lives (Wagener, 2020). These models also provide support for harsher drug laws and stricter public policies pertaining to the management of addictive disorders. Perspectives which

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deviate from the moral-relevance models argue that in order to avoid devolution into unresolvable debates - as well as to avoid systemic mistreatment of patients with addictive disorders (Allen, 2011; Koenig et al., 2012) - addiction should never be framed as a moral condition, but rather as a ‘maladaptive coping strategy’, ‘brain disorder’, symptom of ‘sociocultural disadvantage’, ‘learning disorder’, ‘phenomenon of habit,’ or as some form of combination of these (Commonwealth of Australia, 2004; Matano & Wanat, 2000; Szalavitz, 2016; Wynia, 2018). Support for these perspectives rests in the notion that the labeling of addictive disorders as ‘moral’ conditions inevitably gives rise to discrimination. To illustrate, one theoretical model of public perceptions of people who use drugs associates ‘perceptions of immorality’ with ‘feelings of stigma toward people who use drugs’ (Global Commission on Drug Policy, 2017). Indeed, when clinicians are overly moralistic their perceptions of patients’ conditions become distorted and their relationships with colleagues are adversely affected (Rentmeester & George, 2009). Conflicts over ethics may lead to distress and burnout among clinicians, interference with clinician teamwork, and the erosion of trust between patients and practitioners (Pavlish et al., 2019). Additionally, moral evaluations can impede advances in empirical science (Greenwald, 2009), equitable patient care, workplace professionalism (Barnett & Johnson, 2011; Knox & Hill, 2003), and rapport within patient-practitioner alliances (Hill et al., 1988). Nevertheless, moral-relevance models of addiction persist, suggesting an undeniable moral relevance to human habits and behaviors. These models exist in conjunction with models of evolution, neurochemistry, upbringing, and culture (Prinz, 2007); they are not mutually exclusive.

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### **The Need for a Measure of MEPB**

In order to empirically examine MEPB, a valid and reliable assessment tool is needed. This study developed and psychometrically evaluated a new measure because - to the extent of this author's knowledge - no updated, comprehensive, and psychometrically rigorous quantitative survey measure for this construct exists. Since a study of MEPB requires empirical specificity, the study focuses on MEPB specific to substance misuse, a category of health behaviors widely addressed in the literature on stigma and clinical burnout. The measure used for this construct draws from the non-moralism subscale of the Substance Abuse Attitude Survey (SAAS), but differs from it in that it focuses on aspects of moral evaluations hypothesized to be relevant to clinical interactions, rather than perceptions regarding drug danger or drug laws. Furthermore, the measure of MEPB uses updated language, avoiding outdated or religiously/denominationally-specific terminology, which is present in the SAAS (e.g. "street-pushers" and "clergymen") (Chappel et al., 1985; Richmond & Foster, 2003). Information on the development and psychometric evaluation of this six-item tool is provided in the Measures section.

### **Cross-cultural Perspectives**

For many years, research in the field of moral psychology showed that understandings of morality are socioculturally developed and differ by country (Buchtel et al., 2015; Shweder et al., 1997). Health professionals from three countries were sampled in order to examine whether the measure of MEPB is generalizable across cultures and national origins, and to uncover possible differences. The particular countries selected for this study were based on their distinctiveness, as well as access to samples in each country. Two forms of distinctiveness by country are

## STUDY 1: A MEASURE OF MORAL EVALUATIONS OF PATIENT BEHAVIOR (MEPB)

discussed in this study: 1.) sociocultural differences in moral cognition, and 2.) incidence/prevalence rates of SUDs.

### *Differing Sociocultural Understandings of Morality/Moralité/道德*

Understandings of morality are socioculturally and contextually dependent. While many theories of moral development exist, there has long been recognition that many of these fail to account for differences across cultures (Dien, 1982; Norenzayan & Heine, 2005) which cultivate differential value systems, cognitive/emotional expectations, and self-concepts (Krettenauer & Jia, 2013).

The terms “Western” and “Eastern” exhibit some utility for the purposes of generalization, despite the fact that the areas they refer to are not homogenous regions with characteristics that can be captured using such umbrella categorizations. For example, many Western countries - including France and the United States - fundamentally value liberty, democracy, equality, rationality, human rights, progress, and modernity (Lamont & Thévenot, 2010), and their cultures are shaped by valuations of care/harm (Buchtel et al., 2015; Shweder et al., 1997). In contrast with Western moral norms, Eastern norms are more shaped by concepts of authority, ingroup loyalty, and purity (Graham et al., 2011).

A substantial proportion of Americans’ understandings of morality are shaped by various forms of religiosity (Pew Research Center, 2014, 2018), though this trend varies considerably by geographic region (Pew Research Center, 2016). France and China, by contrast, are countries with generally secular understandings of morality - “moralité” in French and “道德” in Chinese (Kipnis, 2015; Kleinman, 2010; McPartland, 2013; Pujol et al., 2016). In France, a law called “laïcité,” (translated as “freedom of conscience”) requires that public areas, including hospitals and health clinics (McPartland, 2013), maintain neutrality with regard to visible religious

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symbols; personal displays of religiosity are not to be ostentatiously displayed or allowed to hinder the work of medical staff (Malamut, 2014; Tassy et al., 2004). Similarly, under the Chinese government's national standards for moral behavior, the only language which references religion is in the form of cautionary wording regarding the expression of dangerous religious ideologies (Lazarus, 2016; State Council of the CPC Central Committee, 2019).

In China, the Central Government plays a large role in shaping political-moral education programs that begin in early childhood (Lee et al., 1997). From a young age, concepts of morality are associated with the term 表现很好 (Biǎoxiàn), which literally means “performing well,” but conceptually represents an “all-encompassing moral index for individual merit” associated with education and sociopolitical order (Xu, 2019). Even at the graduate and post-graduate levels, political morality is incorporated into educational systems. For example, medical education in China includes requisite ethics coursework on topics such as Mao Zedong Thought, Marxism, and socialism with Chinese characteristics (Kosik et al., 2018). Chinese understandings of morality have historically been shaped by Confucianism (Hwang, 1999), Buddhism, Maoism, collectivism (Yao, 2000), legalism/authoritarianism (Ci, 2014; Lee & Lai, 1978), personal/family honor (Leung & Cohen, 2011), and *face* (i.e. the social evaluation of an individual's moral character) (Hwang, 2006). However, the nation has undergone enormous changes in the last several decades (Ci, 2014), resulting in an ongoing transformation by ideals including but not limited to values of autonomy, consumerism, and materialism (Kleinman, 2010).

While Western and Eastern bioethics have often been considered more individualistic and communitarian, respectively, there nevertheless exists great diversity within both systems, with each containing both individualistic and communitarian traditions (Nie, 2000). Despite the fluid

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nature of sociocultural notions of morality across cultures, research continues to unearth notable distinctions between Eastern and Western concepts of morality. One study showed that compared with American young adults, Chinese young adults placed greater emphasis on the moral foundations of loyalty, authority, and sanctity (Hu, 2017). This study also found that while protectiveness of one's ethnic in-group was positively associated with perceived importance of care and fairness among Chinese young adults, the direction of this effect was reversed among American young adults. Furthermore, in a study which prompted Chinese students to provide descriptors of what they considered to be aspects of moral identity, Jia and Krettenauer (2017) found that the descriptors these students provided diverged from those used in an established Western measure of moral identity (Aquino & Reed, 2002). In the former study, Chinese descriptors did not include Western ones such as "accepting," "non-judgmental," "confident," and "religious," but did include unique descriptors including "credible," "civilized," and "patriotic." Jia and Krettenauer (2017) thus argued that Eastern descriptors appear more socially-oriented than Western descriptors. This supports a wide body of research which suggests that - in contrast with Western moral identity's emphasis on individual-oriented morality - Eastern cultures emphasize society-oriented versions of morality, in which people tend to define themselves within the context of collectivism and the interdependent self (Jia & Krettenauer, 2017; Markus & Kitayama, 1991).

### ***Rates of Substance Use by Country***

Drug use rates across countries may be relevant to general levels of societal acceptance (or moral evaluations) regarding various forms of drug use. It is challenging to reliably compare rates of drug use by country, given that many major global databases - including those of the World Health Organization (WHO) and United Nations Office on Drugs and Crime (UNODC) -

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lack information on certain forms of drug use, particularly for China (UNODC, 2015, 2020). As such, a cross-national comparison requires an evaluation of multiple sources. A 2020 World Drug Report published by the UNODC (UNODC, 2020) indicates higher prevalence rates of cannabis use in North America (14.56%) as compared with Western and Central Europe (7.76%) and with East and Southeast Asia (0.91%); higher prevalence rates of opioid use are also found in North America (3.64%) as compared with Western and Central Europe (0.60%) and East and Southeast Asia (0.21%). Similarly, higher prevalence rates of various forms of ‘harder drugs’ (e.g. cocaine, amphetamines, pharmaceutical stimulants, and ecstasy) are seen in North America, as compared with Western and Central Europe (percentages by drug available in the full report). Data from the World Health Data Platform of the Global Health Observatory (World Health Organization, 2020) provides information on the 12-month prevalence of tobacco use among people aged 15 and over in France (34.6%), the United States (25.1%), and China (24.7%), and the 12-month prevalence of alcohol use among people in the United States (71.7%), France (75.3%), and China (55.9%). Results from these reports collectively suggest that prevalence rates of cannabis, opioids, ‘harder’ drugs such as cocaine, amphetamines, pharmaceutical stimulants, and ecstasy, are highest in North America as compared with Western and Central Europe, and East and Southeast Asia; rates of alcohol and tobacco use vary less among countries . It is important to note that these percentages reflect any amount of use - whether occasional, moderate, or heavy - and that an analysis of substance misuse by country would require additional data, including a cross-national evaluation of definitions of ‘regular’ as opposed to ‘dependent’ or ‘disordered’ drug use by substance.

## STUDY 1: A MEASURE OF MORAL EVALUATIONS OF PATIENT BEHAVIOR (MEPB)

### **Overview of the Current Study**

The current study was aimed at providing an understanding of the moral evaluation of patients' behaviors by health professionals in different countries and cultures. To this end, a novel measure of MEPB was developed and its psychometric properties were evaluated among health professionals in three culturally-distinct regions of the world: California, urban France, and urban China. To minimize regional biases and increase cross-cultural applicability of the results, the construction of this measure was based on cross-national discussions. In order to examine the factor structure of this measure, confirmatory factor analysis was used to evaluate the psychometric quality of the measure developed in this study. Finally, one-way analyses of variance (ANOVAs) were used to examine demographic and regional factors associated with MEPB.

### **Methods**

#### **Participants**

All procedures in this study were performed in accordance with the ethical standards of the Institutional Review Board at Claremont Graduate University (CGU #3490). Recruitment began with the collection of contact information for health professionals (physicians, nurses, and other health professionals) from the websites of major medical schools, nursing schools, schools of psychology, and professional health organizations. Recruitment efforts were limited to post-graduate health programs or hospitals with offices located in California, urban France, and urban China. Potential participants in the California sample were contacted using email, social media posts, and the telephone, with all methods employing use of the same recruitment script. Potential participants in France and China were recruited by email and in person, via intercepts (i.e. a survey approach in which a potential participant is approached by a survey distributor with



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a recruitment flyer) at two public hospitals in Paris and a combined five public and private hospitals in Shanghai. Recruitment flyers included information on the purpose of the research, the approximate duration of survey participation, and the incentive for survey completion: a raffle entry for \$100 (in California), €90 (in France), and RMB ¥700 (in China). All recruitment efforts included wording on approval of study protocol by Claremont Graduate University's Institutional Review Board (IRB).

Because of deviations from study protocol which occurred during the distribution of paper surveys in France, the paper responses from surveys completed there were discarded. The final sample includes physicians, nurses, and 'other health professionals' with work experience in California ( $n = 173$ ), urban France ( $n = 102$ ), and urban China ( $n = 249$ ). Further information on participant demographics is provided in Table 2.

### **Data Collection**

Data for the California sample was collected between July 20 and November 1, 2019, with an online version of the survey delivered via the web platform Qualtrics. Surveys were translated and subsequently proofread by two separate professional translators per non-English language. Data for the French sample was collected between July 1, 2019 and January 6, 2020 using both the online and paper versions of the survey, on which all questions were identical. Finally, data for the Chinese sample was collected between November 1, 2019 and January 6, 2020 using both the online and paper versions of the survey. All participants provided informed consent prior to being given access to the survey. Participants who had been contacted online completed surveys on mobile or desktop devices using a link to the Qualtrics survey; participants who had been recruited in person were given the option of completing the survey on paper or on a mobile device by scanning a QR code that was provided on the study flyer. In the hospitals and

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health clinics in China, data collection was aided by hospital administrators and clinicians who assisted with flyer distribution. Survey items and the CFA syntax are provided in Appendix A, and study data is available on the Open Science Framework.

### **Measure**

The hypothesized construct of MEPB refers to the tendency to view patient behaviors within a moral framework (i.e. as carrying moral meaning or being situated on a spectrum from moral to amoral). In this study, a measure was developed to assess this construct in relation to substance use disorders. This measure includes six items, scored from 1 to 4, with higher scores indicating stronger moral evaluations of substance use/users. The survey questions were adapted from the non-moralism subscale of the Substance Abuse Attitude Survey (SAAS) (Chappel et al., 1985), a measure which has demonstrated reliability and validity (Chappel & Veach, 1987; Gerace et al., 1995). The measure introduced here uses questions regarding free will and cognitive control in relation to substance use, to assess one hypothesized factor of moralized views - as opposed to two hypothesized factors ('drug danger' and 'restrictive treatment'), as done in the SAAS. Since the SAAS was developed based on interviews conducted between 1975 and 1985, wording taken from it was updated to exclude outdated terms, such as "street pushers," and any religiously or denominationally-specific terms, such as "clergymen." The response options were adapted from wording used for the Pew Research Center's 2013 Global Attitudes Survey (Pew Research Center, 2013).

In order for the questions in the present survey to assess personal perspectives as opposed to normative ethics, they were preceded by instructions which asked participants to respond according to their "personal views," rather than what they thought they should say based on societal or workplace ethics. Furthermore, so that the questions would examine perceptions of

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substance use *disorders* as opposed to occasional or recreational use, they were preceded by instructions which asked participants to focus on substances/drugs which lead people to seek psychiatric, psychological, or other forms of medical treatment.

All demographic and survey items are provided in the appendix. The Cronbach's  $\alpha$  of the survey items is 0.832 for the California sample, 0.836 for the urban France sample, and 0.836 for the urban China sample.

### **Data Analysis**

Three single-group confirmatory factor analyses (CFAs) were run in Mplus 7 to evaluate whether the latent construct of MEPB satisfied the hypothesized assumption of unidimensionality in each country. Three multiple-group CFAs were run to evaluate hypothesized weak measurement invariance across countries. A mean score of all six MEPB items was used to test for differences on MEPB by country, age, sex, and occupation. Data fulfilled the requirements of general normality (with a slight right-skew), lack of outliers, and roughly equal sample sizes. Results of Levene's tests indicated that the assumption of homogeneity of group variances was not met for groupings by geographic region, age range, or occupation, but was met for grouping by gender. To control for Type 1 error rates associated with differences in group variances, post-hoc pairwise group comparisons were run using the Welch's *t*-test. Data were missing on all MEPB items for 0%, 4.42%, and 7.84% of the California, urban China, and urban France samples, respectively. No participants showed partial data missingness on MEPB items. Differences in missing data levels are attributable to variations in survey administration by country; while the California surveys were only available in an online format in which the forced response option was activated, the surveys in France and China were available in both online and paper formats, with no such option activated. Missing data in

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the CFAs was treated using the default option in Mplus 7 of full information maximum likelihood (FIML). Missing data in the ANOVAs and Welch's *t*-tests were treated using the default option in SPSS 25 of pairwise deletion. Multiple perspectives indicate comparative strengths of FIML and pairwise deletion for dealing with missing data over alternate approaches including listwise deletion and multiple imputation (Graham, 2012; Jakobsen et al., 2017; Pfaffel et al., 2016). The adequacy of the sample size in this study is supported by simulation study which indicated that a six-indicator model with loadings of 0.50 requires a sample size of 90, in order to achieve power of 0.80 (Wolf et al., 2013)

Power analyses for ANOVAs and Welch's *t*-tests were run in G\*power. For variables with three or more categories (i.e. age ranges, occupation, and geographic region), post-hoc one-way ANOVA power analyses were conducted; these indicated that with a sample size of 524, a medium effect size ( $f = 0.25$ ), and an  $\alpha = 0.05$ , the tests had a power  $> 0.99$ . In order to assess the power of tests for variables with only two categories (e.g. gender), a two-tailed biserial correlation power analysis for a medium effect ( $\rho = 0.3$ ), using  $\alpha = 0.05$  and power = 0.80, indicated a necessary sample size of 82. Goodness of model fits were examined using the following model fit criterion: good fit = RMSEA  $< 0.06$ , CFI  $> 0.95$ ; SRMR  $\leq 0.08$ ; acceptable fit = RMSEA  $\leq .06$ ; and CFI 0.90-0.95, with the recognition that for sample sizes under 250 the possibility of Type I errors is inflated (Bentler & Hu, 1995).

### Results

#### Psychometric Properties

The original measure used in this study included eight items; after CFA and model re-specification to exclude items that loaded on latent factors below 0.50 in any group, the measure retained six items. Factor loadings indicate that at least 25% of the variance of each item is

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explained by its hypothesized factor of MEPB (see Figure 1). Modification indices flagged possible instances of local dependence - situations which occur when the residuals of two or more items covary (i.e. are correlated) after adjusting for a latent factor (Thissen & Steinberg, 2009). Since local dependence introduces bias to estimations (Embretson & Reise, 2000), flagged items were set to be correlated with one another. The addition of one parameter in the France group (i.e. Item 4 with Item 5) did not substantially alter the factor loadings in the France CFA, and likely arose because of overlapping wording between indicator pairs. Cronbach's alphas (reported in the Measures section) indicate that the assumption of internal consistency was met for MEPB in all countries.

### **Measurement Invariance**

In order to determine the functioning of MEPB across countries, measurement invariance was evaluated. This was done through a process of comparing increasingly restricted models and retaining the most parsimonious model that demonstrated adequate model fit (Byrne, 2012; Muthén & Muthén, 2010; Vandenberg & Lance, 2000). Model 1 tested for invariance at the weakest level, sometimes referred to as the level of 'configural invariance,' in which the same pattern of fixed and free factor loadings are specified for each group. This least-restricted model included no equality constraints across groups. Model 2 tested for invariance at a stronger level, sometimes referred to as the level of 'metric invariance, in which factor loadings for similar items are tested for invariance across groups (Horn & McArdle, 1992). In this model, equality constraints were added to all factor loadings across groups (except for those set to 1.0, to establish the scale of measurement). If the use of Model 2 was supported, an increasingly restricted Model 3 would be run and compared against Model 2.

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Differences between the increasingly nested models were tested using the Satorra-Bentler  $\chi^2$  correction formula for robust parameter estimation (Bryant & Satorra, 2012; Byrne, 2012). The  $\chi^2$  difference between Model 1 and Model 2 was significant at  $p < 0.01$ , suggesting retention of Model 1 (the less parsimonious model with more parameters) and establishment of measurement invariance at the weakest (i.e. the “configural”) level. While configural invariance implies that results across groups can be considered at least on a conceptual level, analyses must be tempered with the recognition that constructs are measured somewhat differently across groups (Byrne, 2012; Horn & McArdle, 1992; Muthén & Muthén, 2010; Vandenberg & Lance, 2000).

**Table 1**

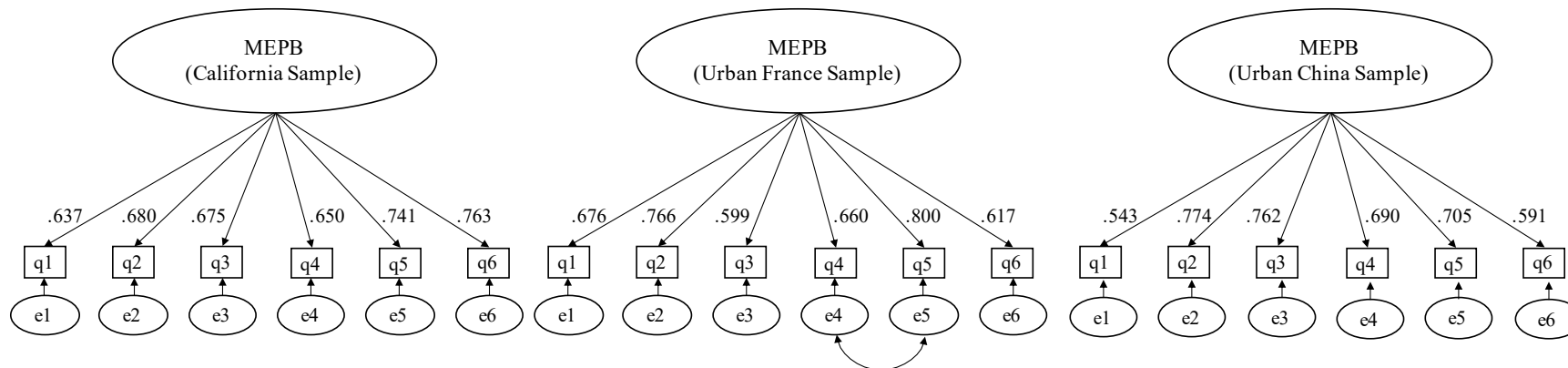
*Fit Indices of Confirmatory Factor Analyses for Moral Evaluations of Patient Behavior (MEPB)*

	AIC	$\chi^2$	df	CFI	RMSEA	SRMR	$\Delta \chi^2$
Multiple-group Model 1: No equality constraints specified (a)							
	7233.781	32.072	26	.991	.037	.029	-
Multiple-group Model 2: Equality constraints inserted on factor loadings only (b)							
	7263.333	68.927	35	.949	.074	.085	a & b: $p < 0.001$
Single-group (California)							
	2208.069	8.615	9	1.00	.000	.031	-
Single-group (urban France)							
	1174.954	11.173	8	.980	.062	.030	-
Single-group (urban China)							
	3850.758	13.237	9	.988	.043	.027	-

# STUDY 1: A MEASURE OF MORAL EVALUATIONS OF PATIENT BEHAVIOR (MEPB)

**Figure 1**

*Single-group Confirmatory Factor Analyses of Moral Evaluations of Patient Behavior (MEPB)*



*Note.* All factor loadings significant at  $p < .01$ . Estimates are standardized.

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### **Descriptive Analysis**

Results from Welch's t-tests run in *SPSS 25* are provided in Table 2. Significant differences on the mean scores of MEPB are seen between urban China and California ( $t = -13.014, p < 0.01$ ) and between urban China and urban France ( $t = -11.027, p < 0.01$ ), but not between California and urban France ( $t = .110, p = 0.912$ ); mean scores are highest in urban China when compared to California and urban France. Significant differences on the MEPB mean scores across countries are shown between participants aged 25 to 44 and those over 45 ( $t = 3.94, p < 0.01$ ) and between participants aged 18 to 24 and over 45 ( $t = 4.57, p < 0.01$ ), but not between participants aged 18 to 24 and 25 to 44 ( $t = 1.61, p = 0.109$ ), with mean scores being lowest among participants over 45 years old when compared with participants aged 18 to 24 and 25 to 44. Significant differences on the MEPB mean scores across countries are seen between physicians and nurses ( $t = -3.46, p < 0.01$ ), between nurses and 'other health professionals' ( $t = 5.15, p < 0.01$ ), and between physicians and other health professionals ( $t = 2.05, p = 0.04$ ); mean scores are highest among nurses, followed by physicians, then by other health professionals. No significant differences on the MEPB mean scores are found between males and females ( $t = .379, p = .554$ ).



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**Table 2**

*Means, Standard Deviations, and Welch's t-tests of Moral Evaluations of Patient Behavior (MEPB)*

	<u>California (a)</u>		<u>Urban France (b)</u>		<u>Urban China (c)</u>		<u>T-tests</u>		
	<i>n</i>	Mean( <i>SD</i> )	<i>n</i>	Mean( <i>SD</i> )	<i>n</i>	Mean( <i>SD</i> )	a-b, <i>p</i> = .912		
	173	1.59(.63)	102	1.58(.57)	249	2.51(0.76)	b-c, <i>p</i> < .01	a-c, <i>p</i> < .01	
<i>Age Group</i>	<i>Group Mean</i>								
18-24 (d)	7	1.93(.53)	3	1.55(.10)	38	2.45(.67)	2.32	d-e, <i>p</i> = .109	
25-44 (e)	80	1.58(.66)	58	1.65(.62)	162	2.54(.80)	2.11	e-f, <i>p</i> < .01	
45+ (f)	86	1.58(.60)	41	1.49(.52)	49	2.45(.71)	1.80	d-f, <i>p</i> < .01	
<i>Gender</i>									
Male (g)	34	1.71(.69)	54	1.57(.60)	67	2.48(.74)	1.99	g-h, <i>p</i> = .554	
Female (h)	138	1.57(.61)	48	1.59(.54)	182	2.52(.77)	2.04		
<i>Occupation</i>									
Physician (i)	42	1.61(.67)	65	1.56(.55)	87	2.46(.67)	1.98	i-j, <i>p</i> < .01	
Nurse (j)	46	1.64(.59)	17	1.61(.11)	108	2.65(.82)	2.28	j-k, <i>p</i> < .01	
Other HP (k)	85	1.56(.64)	20	1.63(.68)	54	2.28(.72)	1.81	i-k, <i>p</i> = .04	

*Note.* MEPB items scale range: 1–4.

## Discussion

### Weak Measurement Invariance

In this study, measurement invariance was only established at the configural (i.e. weak) level by country, suggesting that the instruments used here operate differently in each country. This finding is similar to that of Iurino and Saucier (2020), who found that the Moral Foundations Questionnaire (Graham et al., 2011) did not converge well across 27 countries in areas including North America, Western Europe, and East Asia. Culturally specific interpretations of wording of survey items may also have been associated with apparent difference by country. Research has shown that different cultures hold differing beliefs about what is moral, as shaped by individual and/or collective worldviews (Yao, 2000), sanctity-of-life

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vs. quality-of-life ethics (Poh-Wah, 2002), or liberal/social, welfarist/deontological views (Dickenson, 1999).

Another cause of weak measurement invariance may have been differences in the survey administration approaches between countries (i.e. surveys were administered online-only in California, and either online or on-paper in urban France and urban China). Finally, differences may have been associated with differences in the occurrence of social desirability bias by country. To explain – the concept of ‘moral evaluations’ might be differently viewed or valued differently by country, and health professionals from given countries might respond in manners biased by their feelings about how they should respond to questions about moral evaluations in clinical settings.

### **Group Differences**

While configural invariance would certainly imply that group differences merit discussion, weak invariance indicates caution in interpreting group differences, which must be considered preliminary. One finding on group differences is that MEPB was highest in China. Mean scores on MEPB were largely higher in urban China when compared with California (Cohen’s  $d = 1.39$ ) and urban France (Cohen’s  $d = 1.32$ ). This finding may be studied through an exploration of the values that shape each country’s moral landscape. Differences in moral foundations between countries were briefly discussed in the Introduction, and in Study 2 both religiosity and authoritarianism were associated with MEPB in the California sample - with the effect being stronger between religiosity and MEPB. Data on religiosity and authoritarianism were not collected in France or China, but future studies might explore the effects of these factors and others in China, in order to understand why MEPB is higher in that country. Given the relatively secular nature of urban China when compared with the United States, however, it

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appears that certain factors must be even more influential than religiosity when it comes to shaping concepts regarding the moral nature of SUDs. Given traditions of collectivism in China, such concepts in the Chinese context might be shaped by thoughts about how SUDs impact the social lives and communities of patients affected by them. Concepts of MEPB in China may also relate to the culturally specific notion of *losing face* - the moral-emotional state of losing respect among one's peers and social circle. In China, mental illness is often associated with a loss of face or sense of stigma, in ways that bring shame not only to the mentally ill, but also to their family members (Yang et al., 2007). Because of the effects of mental illness on the reputational status of a patient's family and social network, it is possible that the high levels of MEPB reported in China reflect a greater consideration of the effects of substance misuse on family members and social groups, as opposed to the effects of substance misuse on just the patients themselves.

The finding that MEPB was largely lower among participants over 45 years old, when compared with participants aged 18 to 24 (Cohen's  $d = 0.73$ ) and moderately lower when compared with participants aged 25 to 44 (Cohen's  $d = 0.38$ ), provides avenues for speculation. This finding may indicate that as people age, any views that they might have had about substance misuse being amoral become less extreme. This change in perspective may be a result of what people witness or personally experience regarding drug use over the course of the first 45 (or more) years of their life. This difference may also represent a generational difference in perspective; it is possible that participants in the over-45 age group belong to generational cohorts in which drug use is more common or accepted.

MEPB was also found to be highest among nurses, when compared with physicians (Cohen's  $d = 0.36$ ) and 'other health professionals' (Cohen's  $d = 0.57$ ). This finding can be

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interpreted in light of studies which indicated that nurses were less permissive toward substance abuse than social workers (Richmond & Foster, 2003); that nurses recommended more punitive responses to problem drinking, while physicians, psychologists, and workers advocated for more therapeutic responses (McLellan et al., 1978); that nurses were more likely to recommend compulsory treatment for problem alcohol use when compared to physicians (Poikolainen, 1988); and that nurses were less tolerant and more morally condemning of alcohol and drug use, when compared with other health care professionals (Howard & Chung, 2000).

### **Limitations**

The results of this study were limited by the use of a convenience sample of self-report data. Since people may feel compelled to respond in certain ways (particularly in professional settings) to questions about moral values, the data collected on MEPB may have been biased by social desirability and demand characteristics. The generalizability of findings is furthermore limited by the ambiguity of the category of ‘other health professional’. While this study used a CFA to examine the factor structure of the hypothesized construct of MEPB, additional approaches are needed to determine the validity of this measure. Future research on MEPB would be aided by the use of alternative data collection approaches, which would help minimize differences in measurement procedures across country and provide insight into differential operation of MEPB by countries.

### **Conclusion**

The moment in which a health professional looks at his or her patient and privately determines that the patients’ problem has something to do with the patients’ morality, the health professional becomes faced with a series of choices in two categories. The first category includes giving up, feeling the patients’ problems are beyond clinical help, developing a sense of

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impatience with or disliking for the patient, or feeling discouraged or demoralized in their role as a clinician. The second category is fundamentally different. It includes activation of a sense of moral duty to support the patient, the triggering of a consideration of psychological, sociocultural, or environmental factors which the patient may be experiencing, and an increased likelihood to suggest treatment approaches which might support the patients' inner life. This study develops and psychometrically evaluates a survey tool which can be used to build upon the current research, in order to understand mechanisms which drive health professionals toward one category versus the other. Results indicate that this survey measure can be used to reliably assess the unidimensional construct of MEPB in different cultural settings. While the current study evaluates MEPB among health professionals, future research may use the MEPB survey among other samples for whom moral judgements may be of clinical or social relevance (e.g. patients, patients' partners, police officers, corrections officers, etc.). Future research may also explore intrapersonal and interpersonal predictors and outcomes of MEPB pertaining to help-seeking behaviors, adherence to treatment recommendations, recovery rates, practitioner-patient rapport, and may explore moral evaluations of a wider range of patient behaviors (including diet, exercise, and risky sexual behaviors, among others).

### **Conflicts of Interest**

The author of this study declares no conflicts of interest.

## Study 2 Abstract

Moral evaluations of patient behavior (MEPB) affect a wide range of health outcomes including to whom care is provided, how it is provided, and the mechanisms through which caregiving affects both patients and caregivers. The present study uses survey data from a convenience sample of 173 physicians, nurses, and other health professionals in California, to explore two hypothesized predictors of MEPB (specific to substance use disorders): authoritarianism, which was measured using a subscale from the Authoritarian Attitude subscale of the Child-Related Values Survey, and, religiosity, which was measured using four items from the Duke University Religion Index. The results of a structural equation model show that religiosity and authoritarianism are positively correlated with one another, as well as with MEPB. These findings may inform research in the fields of philosophy, social psychology, moral psychology, medicine, and bioethics.

*Keywords:* authoritarianism, religiosity, bioethics, moral psychology, clinical competence, clinical perspectives, burnout, substance use disorders, stigma, behavioral disorders, medical ethics, nursing ethics

## STUDY 2: PREDICTORS OF MORAL EVALUATIONS OF PATIENT BEHAVIOR

### **Study 2: Religiosity and Authoritarianism as Predictors of Moral Evaluations of Patient Behavior among Health Professionals in California**

#### **Moral Evaluations**

Moral evaluations “shape the definition of rights, the distribution of prestige, and the dispensation of social welfare benefits” (Morone, 1997, p. 998). In the context of health care, moral evaluations of patients’ thoughts and behaviors (e.g. diet, exercise, sexual behavior, and the like) theoretically influence health professionals’ treatment of patients, particularly with regards to how their clinical knowledge and skills are applied (Chappel & Schnell, 1977; Chappel et al., 1985). As such, it is imaginable that moral evaluations of patient behaviors (MEPB) are associated with a wide range of health outcomes, including whom care is provided to, how it is provided, and the mechanisms through which caregiving affects both patients and caregivers.

Hill (2010) notes that many health care professionals are troubled by interactions with patients that trigger moral judgements, and that - despite decades of theoretical discussion regarding the effects of moral judgements in health care settings - there exists little research on the dynamics and prevalence of moral judgements in the field. Furthermore, the impacts of such judgements on health care relationships and outcomes, both for patients and for providers, have not been addressed sufficiently. The present study seeks to fill part of this gap by examining two hypothesized drivers of moral evaluations specific to substance use disorders (SUDs) (an umbrella category of commonly-moralized human behaviors).

In the United States, attitudes toward drug misuse have historically been linked to the idea that it is sinful and amoral. From this perspective, responses have emerged such as the

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*Harrison Act* of 1915 which prohibited physicians from treating opiate dependence, the prohibition of alcohol in the 1920s, and the War on Drugs, beginning in the 1970s. Since public policy is often shaped by concepts either related to religion or regarding the rights and responsibilities of the government over personal choices, this study explores religiosity and authoritarianism as drivers of MEPB.

### **Religiosity**

All major religions ascribe various meanings to the human body and human behaviors, with moralized topics including reproductive rights, nutrition, sexual behavior, brain death, genetic science, transplant medicine, and organ donation, among others (Cahill & Farley, 1995). Any study of religiosity demands a recognition that it is wide-ranging and diverse, with varied manifestations across religions, denominations, regions, and individual expression. Nevertheless, many similarities in the individual morals and social values upheld by some of the world's major religions - including Judaism, Christianity, and Islam (Montville, 2016) - enable a broad evaluation of the effect of religiosity on personal values. Religiosity (RELIG) can affect a person's sense of ethics both directly (Razzaque & Hwee, 2002; Tariq et al., 2019; Tse & Au, 1997; Wimalasiri et al., 1996) and indirectly through their personal characteristics and cultural values (Hunt & Vitell, 1986; Tariq et al., 2019).

In many religions and religious denominations, substance misuse is viewed as immoral - if not explicitly, then for its associations with other behaviors which are viewed as immoral (e.g. hedonism, immoderation, etc.) (Crocq, 2007). In some religions or religious denominations there exists the belief that substance misuse causes harm or impurity not only to the physical body, but also to the immaterial soul, human spirit, and/or the sacred relationship between a person and the divine. For example, the ethics statement of the Christian Medical and Dental Associates claims



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that their organization “deplores” the use of intravenous drugs (Christian Medical and Dental Association, 2018). Similarly, the position statement of the Islamic Medical Association of North America on Medical Ethics states that drug abuse is not morally acceptable (Islamic Medical Association of North America, 2019).

### **Authoritarianism**

Authoritarianism (AUTH) can broadly be defined as a philosophical approach which embraces obedience to authority figures and figureheads, including in-group norms and traditions (Lippa & Arad, 1999); as such, inherent to this construct are moral evaluations and expectations. Many major measures of authoritarianism include items regarding perspectives on both morality and religion, with the Authoritarianism-Rebellion Right-Wing Authoritarian Survey (RWA) including an item that assesses perspectives on drug misuse (Altemeyer, 1981). Meanwhile, the Child-Related Values Survey (CRVS) assumes that authoritarian attitudes are reflective of moralistic expectations of children (Sockloskie, 1990); this relationship appears to be bi-directional, with authority figures shaping people’s beliefs about morality, and such beliefs about morality shaping people’s views of authority figures. In a research study among university students, authoritarian attitudes predicted less comfortable interactions with people who have criminal records (Yelderman et al., 2018). Social conformity has been examined both as a ‘dimension’ (Feldman & Stenner, 1997) and as a positive correlate of authoritarianism (Duckitt, 2001). This is relevant to the current study, given that the construction of social conformity has been shown to be associated with feelings of intolerance towards deviant (i.e. “amoral”) behaviors (Feldman & Stenner, 1997). Similarly, it has been examined using a scale which includes an item on self-report moralism (Duckitt, 2001).

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Personal values are contextually- and environmentally-shaped. To illustrate the effect of just one factor of a person's environment (i.e. 'the government') in shaping personal senses of 'right' or 'wrong' – an individual raised in the People's Republic of China would likely have educated and familiarized with the Chinese Central Government's national standards for moral behavior (Lazarus, 2016; State Council of the CPC Central Committee, 2019). However, the extent to which these standards would actually shape this individual's sense of morality would be affected by his or her allegiances to and beliefs about governmental authority, and/or his or her duty to adhere to governmental standards.

### **Overview of the Present Study**

This study analyzes data on 173 health professions in California, examining two hypothesized drivers of MEPB (RELIG and AUTH) specific to substance use disorders (SUDs). Based on prior research (Passini, 2017; Saucier & Skrzypińska, 2006; Shaffer & Hastings, 2007) and the perspectives described in the previous section, this study hypothesizes that RELIG and AUTH are positively associated both with one another and with MEPB, despite variations both within and across religions and types of authoritarianism. Since no identical studies of this nature have been conducted, effect sizes must be considered within the context of research on similar topics.

For instance, cross-sectional research has associated religiosity positively with moral disapproval of pornography use at  $R^2 = 0.24$  (Grubbs et al., 2015) and ethical judgement of business scenarios at  $R^2 = 0.38$  (Tariq et al., 2019). Cross-sectional studies have also found positive associations between three forms of authoritarianism and prejudice toward people from a racial minority out-group at  $R^2 = 0.2401-4356$  (Passini, 2017) and between right-wing authoritarianism and negative attitudes towards homosexuality at  $R^2 = 0.2704$  (Whitley & Lee,

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2000). These studies are relevant to the current study, given that – just like the other behaviors explored in those studies – substance misuse is a subcategory of a wider category of human behaviors which are frequently/traditionally discussed with regard to their ‘moral’ meanings or implications.

### **Methods**

#### **Participants**

The recruitment of the 173 health professionals surveyed in this study began with the collection of contact information from the websites of major medical schools, nursing schools, schools of psychology, and professional health organizations located in California. From there, potential participants were contacted via email, social media posts, or telephone, using a standard set of wording across all recruitment efforts. Recruitment wording included information regarding the purpose of the research and the approximate duration of survey participation. Additionally, information was provided about the incentive for survey completion: a raffle entry for \$100. Online recruitment included the same information in writing (whether in the body of an email or social media post); telephone outreaches included the information in verbal form. Eligibility was based on self-report identification as a health professional in California. The final sample included 42 physicians, 46 nurses, and 85 ‘other health professionals’. Occupations reported by participants in the category of ‘other health professional’ can be ordered within the following subcategories: clinical psychologist, counseling psychologist, and psychologist (no specialty specified) (29.41%); health educator, health counselor (specialties listed include HIV, nutrition, behavioral health, substance abuse, mental health, and geriatric health) (25.88%); LMFT, MFT, LCSW, social worker (no licensure listed) (18.82%); and other occupations in medicine, nursing, and human health (25.88%).

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### **Data Collection**

Data was collected between July 20 and November 1, 2019, with an online version of the survey delivered on the web platform Qualtrics. Participants who were contacted via email and social media were able to complete the survey on mobile or desktop devices, using a link to the Qualtrics survey. Each participant provided informed consent prior to accessing the survey, and all procedures in the study were performed in accordance with the ethical standards of the Institutional Review Board at Claremont Graduate University (CGU #3490).

### **Measures**

The content and scaling of items used in the survey are shown in Tables 1 and 2, respectively.

#### ***Moral Evaluations of Patient Behavior (MEPB)***

MEPB - in this study, examined as it pertains to patients' SUDs - were measured using a six-item Likert-scale measure which was developed and psychometrically assessed in Study 1, on which higher scores indicate greater feelings about SUDs as conditions that carry moral meaning. This tool demonstrated adequate internal consistency with a Cronbach's  $\alpha$  of .832. Further information on demographic and other factors associated with this tool are provided in Studies 1, 3, and 4.

#### ***Authoritarianism (AUTH)***

Authoritarianism (AUTH) was assessed using six items selected from the Authoritarian Attitude subscale of the *Child-Related Values Survey (CRVS)* (Sockloskie, 1990), a measure which assesses six factors that affect people's views of children (whether their own, or children in general): affective valence, empathetic caring, self-sacrifice, societal duty, instrumentality, and authoritarian attitudes. This scale has demonstrated internal consistency (Cronbach's  $\alpha =$

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.80), divergent validity when compared with measures of humanitarianism, and face validity for measures of conservative attitudes (Sockloskie, 1990). The Cronbach's  $\alpha$  for AUTH in this study was .931.

### ***Religiosity (RELIG)***

Religiosity (RELIG) was assessed using the Duke University Religion Index (DUREL) (Koenig & Büssing, 2010), a Likert-style measure that includes items on three dimensions: organizational religious activity, non-organizational religious practices, and intrinsic religiosity. Questions on this measure assess frequency of engagement in religious activities and personal beliefs about divinity. The DUREL was developed for the study of religion in terms of its effects on health and has been used in over 100 published studies internationally. The scale has demonstrated high test-retest reliability (intra-class correlation = 0.91), internal consistency (Cronbach's  $\alpha = 0.71-0.86$ ), and validity according to other measures of religiosity ( $r = 0.71-0.86$ ) (Koenig & Büssing, 2010). The present study originally included five items from the DUREL; following a CFA analysis and model re-specification which excluded items that loaded on latent factors below 0.40 in any group, the measure retained four items. In this study, the Cronbach's  $\alpha$  for RELIG was .830.

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**Table 1**

*Demographic Survey Items*

<p><u>Question</u> What age category are you in?</p>	<p><u>Age</u></p>	<p><u>Response options</u></p> <ul style="list-style-type: none"> <li>• 18-24 (1)</li> <li>• 25-44 (2)</li> <li>• 45+ (3)</li> </ul>
<p><u>Question</u> What is your gender?</p>	<p><u>Gender</u></p>	<p><u>Response options</u></p> <ul style="list-style-type: none"> <li>• Male = (1)</li> <li>• Female = (2)</li> <li>• Other = (3)</li> </ul>
<p><u>Question</u> Are you a health professional who currently or previously worked in California?</p> <p>What is your primary occupation?</p>	<p><u>Occupation</u></p>	<p><u>Response options</u></p> <ul style="list-style-type: none"> <li>• Yes (1)</li> <li>• No (2)</li> <li>• Physician (1)</li> <li>• Nurse (2)</li> <li>• Other (3)</li> </ul>

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**Table 2**

*Means and Standard Deviations of Primary Survey Items*

Moral Evaluation of Patient Behavior (MEPB) Specific to Substance Use Disorders	
Item 1: "Substance use is associated with a weak will." (M = 1.43, SD = .794)	Response options: Disagree = 0 Somewhat disagree = 1 Somewhat Agree = 2 Agree = 3
Item 2: "People who use alcohol or other drugs are immoral." (M = 1.25, SD = .614)	
Item 3: "The decision to use alcohol or other drugs is a moral decision." (M = 1.66, SD = .878)	
Item 4: "People who use alcohol or other drugs should think about the morality of their actions." (M = 2.31, SD = 1.17)	
Item 5: "Moral people avoid the use of alcohol or other drugs." (M = 1.42, SD = .739)	
Item 6: "Substance use is a matter of right and wrong." (M = 1.4, SD = .825)	
Authoritarianism (AUTH)	
Item 1: "Children need to always obey their parents without question." (M = 2.62, SD = 1.21)	Response options: Strongly disagree = 1 Disagree = 2 Somewhat disagree = 3 Somewhat agree 4 Agree = 5 Strongly agree = 6
Item 2: "A child who argues needs to be put in his/her place." (M = 2.34, SD = 1.10)	
Item 3: "In general, parents need to be stricter with their children." (M = 3.16, SD = 1.24)	
Item 4: "Children need to treat adults as authority figures." (M = 3.86, SD = 1.14)	
Item 5: "It is alright to physically punish children whenever they disobey." (M = 1.86, SD = 1.09)	
Item 6: "Children who grow up to be bad are those who were not punished enough as children." (M = 1.69, SD = .983)	
Religiosity (RELIG)	
Item 1: "How often do you spend time in private religious activities, such as prayer, meditation, or Bible study?" (M = 3.08, SD = 1.90)	Response options: Rarely or never = 1 A few times a month = 2 Once a week = 3 Two or more times/week = 4

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	Daily = 5 More than once a day = 6
Item 2: “In my life, I experience the presence of the Divine (i.e., God).” (M = 3.61, SD = 1.55)	Response options: Definitely not true = 1 Tends not to be true = 2
Item 3: My religious beliefs are what really lie behind my whole approach to life. (M = 3.11, SD = 1.66)	Unsure = 3 Tends to be true = 4 Definitely true of me = 5
Item 4: I try hard to carry my religion over into all other dealings in life. (M = 2.85, SD = 1.60)	

### Data Analysis

This study used confirmatory factor analysis (CFA) and structural equation analysis (SEM) in Mplus 7, employing maximum likelihood estimations with robust standard errors (MLR) to evaluate the effects of AUTH and RELIG on MEPB, controlling for age, gender, and occupation. In the CFA, indicators were loaded on their hypothesized factors and correlations were estimated between these factors. In order to determine an optimal SEM, a hypothesized model was compared against an adjusted model which tested for the effect of covariates. The significance of regression paths was based on z-tests, and Satorra-Bentler  $\chi^2$  difference tests were run to test differences between the adjusted and hypothesized models. If the  $\chi^2$  difference was significant, the adjusted model was retained. Furthermore, regression paths between models were compared to assess for major changes in the valence or magnitude of regression paths.

Both the hypothesized and adjusted models included AUTH and RELIG as the exogenous independent variables and MEPB as the endogenous dependent variable. Both models included age, gender, and occupation as covariates in the data and the variance–covariance matrix analyzed in the structural models; these were also exogenous predictors in the adjusted model. Additionally, in both models correlations were estimated between these variables and



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between AUTH and RELIG. Nested, adjusted models included three additional regression paths for MEPB regressed on the three covariates, respectively.

Missing data was treated using full information maximum likelihood. This approach allows for the use of all data without listwise deletion and has strengths over multiple alternate approaches, including multiple imputation (Graham, 2012; Jakobsen et al., 2017; Pfaffel et al., 2016). Data was missing for 0% of participants on MEPB, 1.7% on RELIG, and 2.3% on AUTH.

Determination of sufficiency of sample size for this study was based on recommendations on ratios of participants-to-variables for SEM including 3-6 participants per variable (Cattell, 1978), at least 10 participants per variable (Everitt, 1975), and 5-10 participants per variable (Gorsuch, 1983). According to all of these recommendations, the sample size of 173 - which was used in the present model - was adequate to achieve power. This justification must be tempered with the recognition that sample size requirements for SEM vary depending on numbers of factors and indicators, strengths of regressive paths, degrees of data missingness, and model types (MacCallum et al., 1999; Wolf et al., 2013) A priori criteria for a good model fit were set at  $\chi^2/df \leq 3.00$ , SRMR  $\leq .08$ , CFI  $\geq 0.95$ , and RMSEA  $\leq .06$ , with the recognition that for sample sizes under 250 the possibility of Type I errors is inflated (Hu & Bentler, 1999; Schreiber et al., 2006). The syntax for this analysis is presented in Appendix A and the data is available on the Open Science Framework.

### **Results**

The Cronbach's alphas on AUTH ( $\alpha = 0.830$ ), RELIG ( $\alpha = 0.931$ ), and MEPB ( $\alpha = 0.832$ ) exhibited good internal consistency, providing support for the assumption of unidimensionality (i.e. convergence of items) in each latent construct individually. The fit of the measurement model was tested using a CFA, with indicators loading on their hypothesized

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factors and correlations estimated among these factors. This model indicated a good model fit at  $\chi^2/df = 1.24$ , SRMR = .052, CFI = 0.979, and RMSEA = .037. In the structural model, comparisons of regression paths between hypothesized and adjusted models indicated an absence of notable changes in the valence or magnitude of paths. The final retained model was an adjusted model, which is shown in Figure 1. In this model, MEPB is negatively associated with age at  $\beta = -0.158$ ,  $p < .05$ , indicating lower levels of MEPB among older participants. Also in this model, AUTH predicts MEPB at  $\beta = .220$ ,  $p < .05$ ,  $R^2 = .073^1$ , and RELIG predicts MEPB at  $\beta = .403$ ,  $p < .01$ ,  $R^2 = .205$ . The model fit indices are provided in Table 3. Correlations between the independent variables (i.e. the primary predictors of AUTH and RELIG, and the covariates) ranged from  $-.010$  ( $p = .904$ ) to  $-.369$  ( $p < .01$ ). All correlations and the covariance matrix are available from the author.

**Table 3**

*Fit Indices of Alternate Moral Evaluations Models*

	AIC	$\chi^2$	df	CFI	RMSEA (90% CI)	SRMR	Models $\Delta \chi^2$
Hypothesized model	7932.722	192.810	149	.964	.041 (0.022, 0.057)	.066	-
Adjusted (final) model (b)	7928.166	171.810	140	.974	.036 (0.010, 0.053)	.052	a & b: $p < .001$

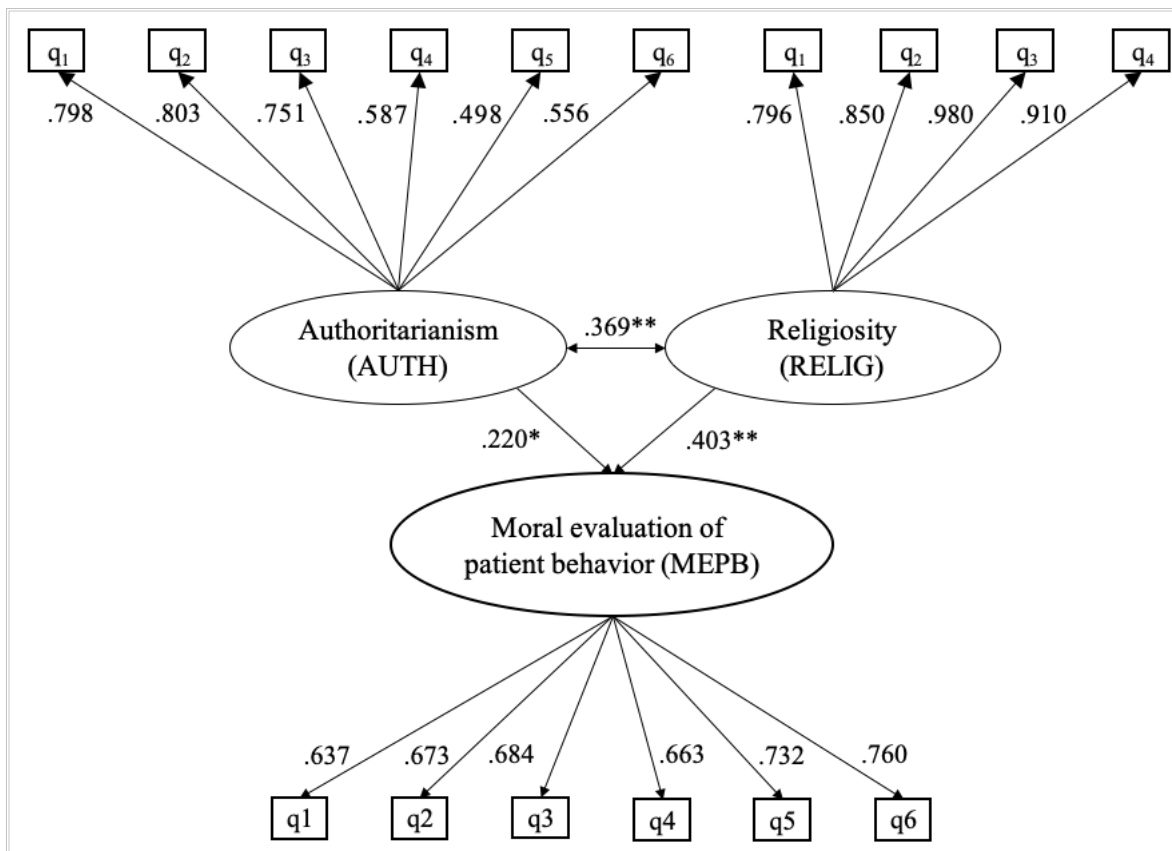
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<sup>1</sup> Effect sizes calculated using the following formula:  $r = \beta + \lambda(.05)$  (Peterson & Brown, 2005)

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Figure 1

Predictors of Moral Evaluations Structural Equation Model



Note. All factor loadings significant at  $p < .01$ . The double headed arrow depicts a correlation between two factors. Single headed arrows depict regression weights or factor loadings. Estimates are standardized.

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\*  $p \leq 0.05$ . \*\* $p \leq 0.01$ .

**Table 4**

*Correlation Matrix of Items on AUTH, RELIG, and MEPB*

	Author1	Author2	Author3	Author4	Author5	Author6	Relig1	Relig2	Relig3	Relig4	MEPB1	MEPB2	MEPB3	MEPB4	MEPB5
Author1	.708**														
Author2	.565**	.572**													
Author3	.426**	.423**	.555**												
Author4	.306**	.374**	.431**	.346**											
Author5	.419**	.443**	.422**	.318**	.384**										
Relig1	.257**	.197**	.196**	0.03	0.13	0.10									
Relig2	.336**	.256**	.267**	0.05	.179*	0.11	.718**								
Relig3	.341**	.250**	.276**	0.12	.223**	0.14	.774**	.832**							
Relig4	.372**	.267**	.274**	.165*	.245**	.160*	.719**	.754**	.892**						
MEPB1	.281**	.236**	.236**	.194*	0.14	.265**	0.13	0.13	.201**	.203**					
MEPB2	0.14	0.11	0.09	0.12	.193*	.192*	.178*	.174*	.221**	.178*	.444**				
MEPB3	.171*	0.08	.203**	.208**	.174*	0.12	.303**	.257**	.391**	.380**	.349**	.461**			
MEPB4	.222**	.168*	.247**	.213**	0.13	0.10	.269**	.289**	.355**	.329**	.394**	.407**	.544**		
MEPB5	.158*	0.12	.190*	.180*	0.12	.204**	.213**	.165*	.254**	.233**	.527**	.534**	.467**	.441**	
MEPB6	.298**	.186*	.183*	0.13	.189*	.183*	.195*	.216**	.312**	.286**	.496**	.507**	.526**	.497**	.561**

*Note.* Light grey highlighting indicates scales that were hypothesized to have convergent validity (i.e. stronger correlations). Dark grey highlighting indicates scales that were hypothesized to have discriminant validity (i.e. weaker correlations).

\*\* $p < 0.01$ . \* $p < 0.05$

## STUDY 2: PREDICTORS OF MORAL EVALUATIONS OF PATIENT BEHAVIOR

### **Discussion**

As noted by Hill (2010), there is a dearth of research on drivers and dynamics of moral judgements in health care, despite the impact of these judgements on health care relationships and patient outcomes. This study addresses this gap by examining and comparing the predictive effects of AUTH and RELIG on MEPB. The primary finding from this study is that AUTH and RELIG were both positively associated with MEPB, with small-to-moderate and moderate-to-large effect sizes, respectively; both of these effects are consistent with the a priori hypothesis.

The moderate-to-large positive effect of RELIG on MEPB (Montville, 2016; Saraglou et al., 2011) was expected, given that all major world religions ascribe moral meaning to the human body and human behaviors (Cahill & Farley, 1995), and beliefs about a Deity/deit(ies) are often - if not always - related to beliefs about a moral order (Montville, 2016; Saraglou et al., 2011). In support of this finding, a 2013 survey conducted by the Pew Research Center (Pew Research Center, 2014) indicated that 53% of people surveyed in the United States believed that it is necessary to believe in God in order to be a moral person. The findings in this study do not indicate that religiosity is positively associated with generalized moral behavior; indeed, multiple studies indicate the opposite (Hofmann et al., 2014; Norenzayan & Shariff, 2008; Shariff et al., 2014). Rather, the suggestions of the present study are limited to the effects of religiosity on personal ideas about what constitutes moral/amoral behavior.

The small-to-moderate effect of AUTH on MEPB was also to be expected given that concepts of morality are shaped and validated by relationships with authority. For some, respect for authority is actually a form of morality. To illustrate, on the Moral Foundations Questionnaire, “Authority/Subversion” was one of the five moral foundations which are held by people to a lesser or greater extent - depending on culture, nationality, and a number of other

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factors (Iurino & Saucier, 2020). To provide an international perspective: in China, the political order has long been tied to morality (Lee et al., 1997), and moral evaluations have long been connected to a person's performance before his or her authority figures (Xu, 2019).

In sum, this study indicates two predictors of MEPB, which may inform future research on mechanism by which MEPB affects health and clinical outcomes. Future research might explore distinctions among types of MEPB, AUTH, and RELIG in order to provide information on subtypes of these factors, and to indicate associations between subtypes and behavioral/attitudinal outcomes among health professionals.

### **Limitations**

The cross-sectional nature of this study's design places limits on the potential for causal interpretation. Additionally, the results are limited by the use of a convenience sample of self-report data, which could be easily biased by participants' urges toward social desirability - particularly given that the survey questions queried participants on fairly sensitive subjects. Future research may consider the use of random samples of multi-informant assessments and/or implicit data collection approaches. While some authors have argued that multifactorial models should be used for the assessments of both religiosity (Koenig & Büssing, 2010; Vitell et al., 2009) and authoritarianism (Passini, 2017), due to the exploratory nature of this study, only one measure for each of these constructs was used. Given that questions about religiosity were designed to assess religiosity in Western religions (e.g. Christianity, Islam, and Judaism) the generalizability of the results might be limited for participants who follow more traditionally-Eastern versions of religiosity (e.g. Hinduism and Buddhism) (Vitell et al., 2009). More research is needed to examine how such effects might differ by religion. Future models could examine

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MEPB as it pertains to other patient behaviors, as well as evaluating the effects of MEPB on patient care (among health professionals) and health outcomes (among patients).

### **Conflicts of Interest**

The author of this study declares no conflicts of interest.

### **Ethics Approval**

All procedures performed in this study were performed in accordance with the ethical standards of the Institutional Review Board at Claremont Graduate University (CGU #3490), as well as the tenets of the Declaration of Helsinki.

### Study 3 Abstract

Among health professionals in California, are moral evaluations predictive of humanitarian care for patients with stigmatized behavioral disorders? This study explores this question using two measures of moral evaluations as predictor variables: moral evaluations of patient behavior (MEPB) specific to substance use disorders (SUDs) and moral evaluations of self (MES). The study uses three measures of ‘readiness to interact humanistically with patients’ as dependent variables: compassion toward patients with SUDs, self-efficacy in assessing and responding to SUDs, and optimism towards treating patients with SUDs. Research questions are explored using a convenience sample of self-report survey data from 173 health professionals (physicians, nurses, and other health professionals) in California. A structural equation model regresses factors of readiness to interact humanistically with patients on MEPB. Results indicate negative associations between MEPB and two factors of readiness to interact humanistically with patients (self-efficacy and optimism), and a positive association between MSI and one factor of readiness to interact humanistically with patients (i.e. compassion toward patients with SUDs). Findings indicate that MEPB and MSI carry differential effects on readiness to interact humanistically with patients - in short, that focusing on the morality of *patient* behaviors is associated with lower self-efficacy and optimism toward the treatment of patients with SUDs, but having a greater moral *self-identity* is associated with higher levels of compassion toward such patients. Results suggest that among health professionals, attunement to one’s own moral strengths can prompt more humanistic care for patients with stigmatized behavioral disorders, whereas attunement to the moral meanings of patients’ behaviors can stimulate the opposite effect.



*Keywords:* bioethics, moral psychology, clinical competence, substance use disorders, stigma, moral identity, medical ethics

## STUDY 3: EVALUATIONS OF THE SELF AND OF THE PATIENT

### **Study 3: Moral Evaluations of the Other Versus Moral Evaluations of the Self: A Comparison of the Predictiveness of Readiness to Interact Humanistically with Patients with Substance Use Disorders**

In clinical settings, patient behaviors such as diet, exercise, sexual activity, or substance use, are often viewed as or treated by health professionals - whether consciously or subconsciously - as morally relevant. Despite a recognized need for empirical research of moral judgements and evaluations in health care settings, there exists a dearth of data on the prevalence and dynamics of such judgements and evaluations on patient-provider relationships and patient-centered care (Hill, 2010). This gap in the literature is pressing, given that moral attitudes shape human behavior.

This study aims to address this gap by exploring whether two types of moral evaluations by health professionals - those of the *self* vs. those of the *other* - are associated with factors of readiness to interact humanistically with patients with substance use disorders (SUDs), using a sample of 173 health professionals surveyed in California. These factors are measured using three separate self-report assessments of clinical compassion, self-efficacy, and optimism towards the treatment of patients with SUDs. The study distinguishes between moral evaluations of the *self* - measured using a tool for the assessment of moral self-identity (MSI) and moral evaluations of the *other*, which are measured using a tool for assessing moral evaluations of patient behavior specific to SUDs (MEPB).

#### **Moral Evaluations of the Self**

Moral identity theory assumes the existence of certain moral-cognitive prototypes (Lapsley & Lasky, 2001; Walker & Pitts, 1998) that collectively define one's sense of moral

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identity as a “working self-concept” which is associated with certain interconnected domains or characteristics (Kihlstrom & Klein, 1994). Although there is no universal consensus regarding which factors represent moral identities, moral psychologists have identified several factors found in multiple cultural contexts; these include autonomy, community, divinity (Shweder et al., 1997), care, fairness/reciprocity, ingroup loyalty, respect for authority, and purity/sanctity (Graham et al., 2009), among many others.

In this study, moral evaluations of the self were assessed using the Moral Self-Image scale (MSI) (Jordan et al., 2015), which was created based on work on the psychological construct of moral identity by Aquino and Reed (2002). The construct of moral evaluations of the self is related to that of ‘personal moral identity’ (Blasi, 1993), which refers to self-placement along a personal continuum of morality, from immoral to very moral, and can theoretically be linked to concepts of self-compassion, self-forgiveness, self-acceptance, and self-love. Jordan et al. (2015) defined MSI as a person’s self-concept within the context of their ideal moral self (i.e. one’s self-concept with regard to morality), and classified this construct as a non-stable state shaped by environment and social context. She and her colleagues found that in some studies this construct was associated with generalized self-esteem, and that in one, it was affected by social comparison, explicit feedback, and personal behavior (ibid). They found in another study that telling people they had achieved their moral ideals caused them to report higher MSI, while telling them that they were further from their moral ideals caused them to report lower MSI (ibid). It should be noted that moral self-image is not an unhealthy form of leniency toward one’s own faults, but is rather a form of self-compassion or self-confidence. This is noteworthy in light of the fact that self-compassion has been shown in one study to be associated with less acceptance of one’s own immoral behaviors (Wang et al., 2017).

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### **Moral Evaluations of Patient Behavior**

In the present study, *moral evaluations of patient behavior* (MEPB) is defined as moral judgements of patients' thoughts and behaviors (e.g. diet, exercise, sexual behavior, etc.). This study examines this construct using an assessment tool for MEPB specific to substance use disorders (SUDs); this tool was introduced and psychometrically evaluated using a larger multinational dataset which includes data used in this study (see Study 1). In short, this construct refers to the extent to which people view patient behaviors as morally relevant (i.e. situated on a continuum from moral to amoral).

### **Readiness to Interact with Patients Humanistically**

Humanistic factors of clinical competence have been identified in the medical and nursing sciences as the 'non-technical' skills, including various cognitive, social, and emotive capabilities that allow for holistic patient care (Evans et al., 2018; Larkin, 1999; Pearson, 2011). Readiness to interact with patients humanistically is measured using three cognitive–emotional reactions to patient behaviors, which have been associated with positive clinical interactions: compassion towards patients with SUDs (COMP) (Buck et al., 2017; Domingues et al., 2009; Goldberg, 2008; Stern et al., 2008), self-efficacy in assessing and responding to such patients (SELF-EFF) (Fry & MacGregor, 2014; Hollingsworth & Ford-Gilboe, 2006; Shochet & King, 2013), and optimism toward treating such patients (OPTIM) (Clarke, 2003; Roche et al., 1995; Wolf et al., 2018).

The first factor, COMP, is one that many medical schools and hospitals train and assess students and employees on (Domingues et al., 2009), and that many health organizations have identified as necessary and deserved for all patients - regardless of whether health practitioners agree with or approve of patients' lifestyles and behaviors (American Medical Association, n.d.; American Nurses Association,

### STUDY 3: EVALUATIONS OF THE SELF AND OF THE PATIENT

n.d.; National Association of Social Workers, n.d.). Even major religious health organizations that denounce certain behaviors as morally wrong recommend compassionate care for patients who engage in these behaviors (Christian Medical and Dental Association, 2018; Islamic Medical Association of North America, 2005).

The second factor, SELF-EFF, carries major implications for HPs' ability to interact humanistically with their patients. Self-efficacy has been identified as a determinant of people's choices of which goals to pursue, as well as their decisions regarding how much time and effort to spend in pursuit of these goals (Bandura, 1997). As such, self-efficacy may enhance clinicians' abilities to engage with patients in otherwise challenging situations. In support of this notion, research indicates that self-efficacy in addressing alcohol-related problems has been positively associated with higher screening and referral behaviors for such problems (Geller et al., 1989), while self-efficacy in one's counseling abilities has been positively associated with a higher likelihood of counseling one's clients on smoking, as well as with more time spent on counseling sessions (Borrelli et al., 2001). In a multi-center qualitative study among emergency nurses, self-efficacy was shown to promote effective clinical decision-making (Hollingsworth & Ford-Gilboe, 2006), and in another study, expectations of one's self-efficacy were predictive of emergency department nurses' clinical responses to female victims of abuse (Hollingsworth & Ford-Gilboe, 2006). It should be noted that findings on the effects of self-efficacy among HPs are not all uniform. For example, in a longitudinal study among physicians and their patients, higher levels of self-efficacy among physicians positively predicted patients' alcohol consumption outcomes six months later (Elwy et al., 2013).

The third factor, OPTIM, can be understood as a form of 'outcome expectancy' or 'prognostic expectation' (i.e. perceived efficacy of treatment, expectation regarding its

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outcome(s), and predicted likelihood of patient improvement/recovery). Behavioral psychologist Albert Bandura (Bandura, 1977, 1978, 1997, 1999, 2006) defined outcome expectancies as personal estimations that certain behaviors lead to certain outcomes, or - stated otherwise - as expectations regarding the responsiveness of the environment to an individual's behavior. While many researchers discuss expectancies within the context of expected outcomes for the self, in this study this construct refers to behaviors expected of others in response to behaviors of the self. This interpretation falls within categories of expectancy outcomes outlined in Bandura's original definition of the term (Bandura, 1977, 1978).

In this study, it was presumed that OPTIM would act as a buffer against caregiver burnout, enabling caregivers to find meaning in or discover alternative solutions to their challenges (Wolf et al., 2018). Existing research indicates support for OPTIM in clinical settings. For example, the same study which found a positive association between SELF-EFF and emergency department nurses' clinical responses to female victims of abuse found that positive 'outcome expectancies' (which can be considered as a form of optimism) were also predictive of this responsiveness to abuse victims (Hollingsworth & Ford-Gilboe, 2006). While positive prognostic expectations have been associated with improved clinical care, negative ones have been associated with demoralization in one's work (i.e. 'burnout' or "loss of faith in one's assumptive world") (Clarke, 2003, p. 166). Furthermore, Roche (1995) found that belief in the success of interventions for people with alcohol or other drug problems varies among HP trainees in different specialties of medicine, with those in the field of psychiatry indicating the highest levels of belief in the potential success of interventions.

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### **Hypothesized Mechanisms of Operation**

Given that MEPB involves presumably negative judgements of patients' behaviors, it was hypothesized that MEPB is associated with lower levels of COMP, SELF-EFF, and OPTIM. Furthermore, given that MSI is a form of self-compassion - and in reference to findings from moral identity research which suggest that moral self-image is positively associated with generalized self-esteem (Aquino & Reed, 2002) - it was hypothesized that in contrast to MEPB, MSI is positively associated with factors of 'readiness to interact humanistically with patients with SUDs' which were examined in this study. According to a dynamic systems perspective (Lowe & Ziemke, 2011), feelings are representations (i.e. predictions based on neural, physiological, and cognitive feedback) of action tendencies (i.e. states of being primed to act in one way or another). As distinct psychological constructs, feelings and action tendencies are engaged in a continuous feedback loop.

In the present model, MEPB and MSI can be conceived of as feelings, while COMP, SELF-EFF, and OPTIM can be conceived of as action tendencies. The way these constructs are hypothesized to relate is as follows: (a) the thought of a patient with a SUD serves as a stimulus which catalyzes (stimulates or gives rise to) emotions or cognitions (moral evaluations); and, (b) these moral evaluations subsequently influence the 'action tendencies' of HP's COMP, SELF-EFF, and OPTIM towards the treatment of patients with SUDs (Lowe & Ziemke, 2011). To summarize, this study hypothesizes six independent relationships - three positive associations between MSI and the distinct constructs of COMP, SELF-EFF, and OPTIM, and three negative associations between MEPB and these same distinct constructs.

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### **Methods**

#### **Participants**

This study analyzed data from 42 physicians, 46 nurses, and 85 other health professionals in California, who were recruited using email, social media, and telephone; contacts were identified using the websites of professional health organizations, schools of medicine, nursing, and psychology. Recruitment scripts provided information on the purpose, duration, and incentive (an entry into a \$100 raffle) of the study. Eligibility was determined by self-identification of participants as a “health professional with work experience in California”. Occupational titles reported by participants in the category of ‘other health professionals’ include clinical, counselling, and specialty-unspecified psychologists (25), health educators/counselors (22), social workers and marriage and family therapists (16), and other various professions supporting human health (22).

#### **Data Collection**

Survey data was collected on the web platform Qualtrics between July 20 and November 1, 2019, via mobile or computer devices - depending on the preference of the participant. Informed consent was provided by participants at the beginning of the survey. On average, participants spent approximately 13 minutes completing the survey.

#### **Measures**

##### ***Moral Evaluations of the Self***

In this study, moral evaluations of the self were assessed using Jordan’s nine-item Moral Self-Image (MSI) scale, which is based on Aquino and Reed’s (2002) work on moral self-identity. This measure contains questions which ask participants how they view themselves in terms of various aspects of morality, compared to where they would like to be (or where their ideal self would be); items used are compassion, fairness, friendliness, generosity, helpfulness,



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hard work ethic, honesty, and kindness (Jordan et al., 2015). This measure was created based on open-ended responses regarding what it means to be “moral” among a Western sample. While descriptors of personal morality have been shown to vary by culture (Jia & Krettenauer, 2017), the use of this measure is justified by the fact that the measure was designed on data taken from a Western sample and the current study is also conducted on a Western sample. Responses on this measure are ranked on a Likert scale ranging from 1 (*much less [descriptor of morality] than I want to be*) to 10 (*much more [descriptor of morality] than I want to be*), with higher scores indicating higher views of personal morality. Among studies conducted by Jordan et al. (2015) - two conducted on American adults recruited through Mechanical Turk, and three conducted on international business students from a university in the Netherlands - the MSI scale indicated Cronbach’s alphas ranging from 0.72 to 0.91. Exploratory factor analysis of the data from the former sample indicated that one factor explained between 51.96% and 52.37% of the variance, with all item loadings at 0.53 or above. In that study, the Cronbach’s  $\alpha$  for MSI was 0.904.

#### ***Moral Evaluations of Patient Behavior (MEPB)***

In this study, MEPB regarding SUDs were measured by a tool which assesses the extent to which people believe that substance misuse is a moral matter (i.e. a matter of right or wrong). The tool used to assess this construct was introduced and psychometrically evaluated in a larger multinational dataset which includes the data used in the present study (see Study 1); results from that study demonstrated that the construct of MEPB demonstrates adequate reliability, weak invariance across countries, and differences between age groups and job categories. It also showed that MEPB is higher among younger health professionals, nurses (when compared to other groups of health professionals), and health professionals in urban China (when compared to health professionals in urban France and California). Items on this scale queried participants on

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the extent to which they agree with statements that indicate that substance misuse is a matter of right or wrong. Responses were ranked on a Likert scale, with scores ranging from *agree* to *disagree*; response options were scored from 1 to 4, with higher scores indicating greater moral self-acceptance. The Cronbach's  $\alpha$  for MEPB in this study was 0.832.

#### ***Compassion towards Patients with SUDs (COMP)***

Questions on the "compassion towards patients with SUDs" (COMP) survey measure were based on those used in the Compassion Subscale of the Dispositional Positive Emotions Scale (DPES), which measures dispositional tendencies to feel compassion toward others (Shiota et al., 2006). The original measure used in the present study included five items; after CFA analysis and model re-specification conducted to exclude items that loaded on latent factors below 0.40 in any group, the measure retained three items. Scores on each item ranged from 1 to 4, with higher scores indicating greater compassion toward patients with SUDs. The Cronbach's  $\alpha$  for this measure was 0.681.

#### ***Self-efficacy in Assessing and Responding to SUDs (SELF-EFF)***

Items in the 'self-efficacy in assessing and responding to SUDs' (SELF-EFF) measure were adapted from wording used for a measure of self-efficacy in assessing and responding to abuse of women which was used in the Violence against Women: Health Care Provider Survey (Hollingsworth & Ford-Gilboe, 2006), as well as items used in the Evidence-based Practice Confidence scale - a scale which assesses confidence in engaging in activities that are part of the process of implementing evidence-based practice (Clyde et al., 2016; Salbach & Jagal, 2011). The wording for each survey question was adapted to be specific to self-efficacy in treating SUDs. The original measure used in this study included ten items; after CFA analysis and model re-specification to exclude items that loaded on latent factors below 0.40 in any

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group, the measure retained three items. Scores for each item on this measure ranged from 1 to 4, with higher scores indicating greater self-efficacy in treating patients with SUDs. The Cronbach's  $\alpha$  for this measure was 0.913.

#### ***Optimism toward Treating Patients with SUDs (OPTIM)***

Items in the measure of “optimism towards treating patients with SUDs” (OPTIM) were adapted from wording used in the Treatment Optimism subscale of the SAAS, which assesses optimism regarding the outcome of various medical treatments. This measure can be considered an assessment of prognostic expectations (i.e. feelings about probabilistic outcomes of treatments) and/or degrees to which people view patient care in a humanistic or optimistic light (Chappel et al., 1985). The original measure used in the present study included five items; after CFA analysis and model re-specification excluded items that loaded on latent factors below 0.40 in any group, the measure retained three items. Scores for each item on this measure ranged from 1 to 7, with higher scores indicating more optimistic views of the potential benefits of medical/psychological approach(es) for treating patients with SUDs. The Cronbach's  $\alpha$  for this measure was 0.508.

#### **Data Analysis**

This study employed confirmatory factor analysis (CFA) and structural equation analysis (SEM) in Mplus 7, using maximum likelihood estimation with robust standard errors (MLR) to evaluate the predictive effects of moral evaluations (i.e. MEPB and MSI) on three measures of readiness to interact humanistically with patients (COMP, SELF-EFF, and OPTIM), while controlling for age, gender, and occupation.

The analysis compared a hypothesized model against an adjusted model which tested for the effect of covariates. If any of the primary regression paths (those of COMP, SELF-EFF, and

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OPTIM on MEPB and MSI) in the retained model were not significant on the basis of z-tests, the retained model was subsequently compared against a trimmed version of it in which the non-significant path was fixed to zero. Satorra-Bentler  $\chi^2$  difference tests were then run to test differences between the adjusted, hypothesized, and trimmed models. If the  $\chi^2$  difference was not significant, the more parsimonious model, which included fewer parameters, was retained.

Regression paths between all models were compared to assess for major changes in the valence or magnitude of regression paths. All models included: MEPB and MSI as the exogenous variables; COMP, SELF-EFF, and OPTIM as the endogenous variables; age, gender, and occupation in the variance-covariance matrix; and an estimation of correlations between all independent variables (the exogenous variables and covariates). Nested, adjusted models included nine additional regression paths - one for each dependent variable regressed on MEPB, age, gender, and occupation.

According to MacCallum et al. (1996), the minimum sample size for SEMs with  $df = 100$  is 164, for the achievement of 0.80 power. The sample size used in this study is further supported by suggestions of sample sizes of a minimum of: 1.) ten participants per variable (Everitt, 1975); 2.) at least five participants per variable (Gorsuch, 1983); 3.) at least three participants per variable (Cattell, 1978); and, 4.) a minimum absolute number of observations of one hundred participants (Boomsma, 1985). The following criterion were set as standards for good model fit:  $\chi^2/df \leq 3.00$ , SRMR  $\leq .08$ , CFI  $\geq 0.95$ , and RMSEA  $\leq .06$ . The analysis syntax and study data are available in Appendix A and the Open Science Framework, respectively.

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### Results

**Table 1**

*Means and Standard Deviations*

	<i>n</i>	<u>MEPB</u>	<u>MES</u>	<u>COMP</u>	<u>SELF-EFF</u>	<u>OPTIM</u>
		Mean( <i>SD</i> )				
<i>Total</i>	173	1.60(.63)	5.65(1.09)	4.67(1.07)	2.54(.84)	2.49(.94)
<i>Age group</i>						
18-24	7	1.93(.53)	5.94(.96)	4.85(.66)	2.14(.79)	3.00(.82)
25-44	80	1.58(.66)	5.50(.98)	4.60(1.05)	2.46(.87)	2.48(.95)
45+	86	1.58(.60)	5.75(1.18)	4.71(1.13)	2.64(.80)	2.45(.94)
<i>Gender</i>						
Male	34	1.71(.69)	5.50(0.85)	4.46(1.06)	2.86(.86)	2.68(.96)
Female	138	1.57(.61)	5.69(1.14)	4.72(1.08)	2.46(.82)	2.44(.94)
<i>Occupation</i>						
Physician	42	1.61(.67)	5.55(0.93)	4.90(.99)	2.59(.83)	2.55(.87)
Nurse	46	1.64(.59)	5.77(1.06)	4.62(1.13)	2.45(.74)	2.45(.99)
Other HPs	85	1.56(.64)	5.63(1.17)	4.58(1.08)	2.56(.89)	2.48(.96)

*Note.* MEPB items scale range: 1–4; MSI scale range: 1–10.

Results indicate no missing data on any items. For the measurement model, a CFA - in which indicators were loaded on their hypothesized factors and correlations were estimated between these factors - indicated a good model fit at  $\chi^2/df = 1.52$ , SRMR = .063, CFI = 0.916, and RMSEA = .055. Additionally, reliability indices suggest adequate internal consistency in each measure, which provides support for the assumption of unidimensionality (i.e. convergence of items) for each latent construct. In the structural model, comparisons of regression paths between hypothesized, adjusted, and trimmed models indicated an absence of notable changes in the valence or magnitude of paths in all countries.

The final retained model is a trimmed, adjusted SEM, shown with primary paths in Figure 1. In this model, SELF-EFF is negatively associated with gender at  $\beta = -0.226$ ,  $p < .05$ , indicating higher levels of self-efficacy among men when compared with women. Furthermore,

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in this model MSI has small positive associations with COMP at  $\beta = .149, p < .10, R^2 = .040$  and with SELF-EFF at  $\beta = .176, p < .051, R^2 = .051$ , and MEPB has a large association with OPTIM at  $\beta = .553, p < .01, R^2 = .364$ , and a small-to-moderate association with SELF-EFF at  $\beta = -.264, p < .01, R^2 = .070$ . Correlations among independent variables (i.e. MEPB, MSI, occupation, gender, and age range) range from  $-.020$  to  $.097$ ; none are statistically significant (all  $p$ 's  $> .10$ ). This model demonstrates adequate fit at  $\chi^2/df = 1.497$ , SRMR =  $.061$ , CFI =  $0.906$ , RMSEA =  $.053$  (90% CI:  $0.043, 0.064$ ), and AIC =  $11136.263$ . Model fit indices are provided in Table 2; all correlations and the covariance matrix are available from the author.

**Table 2**

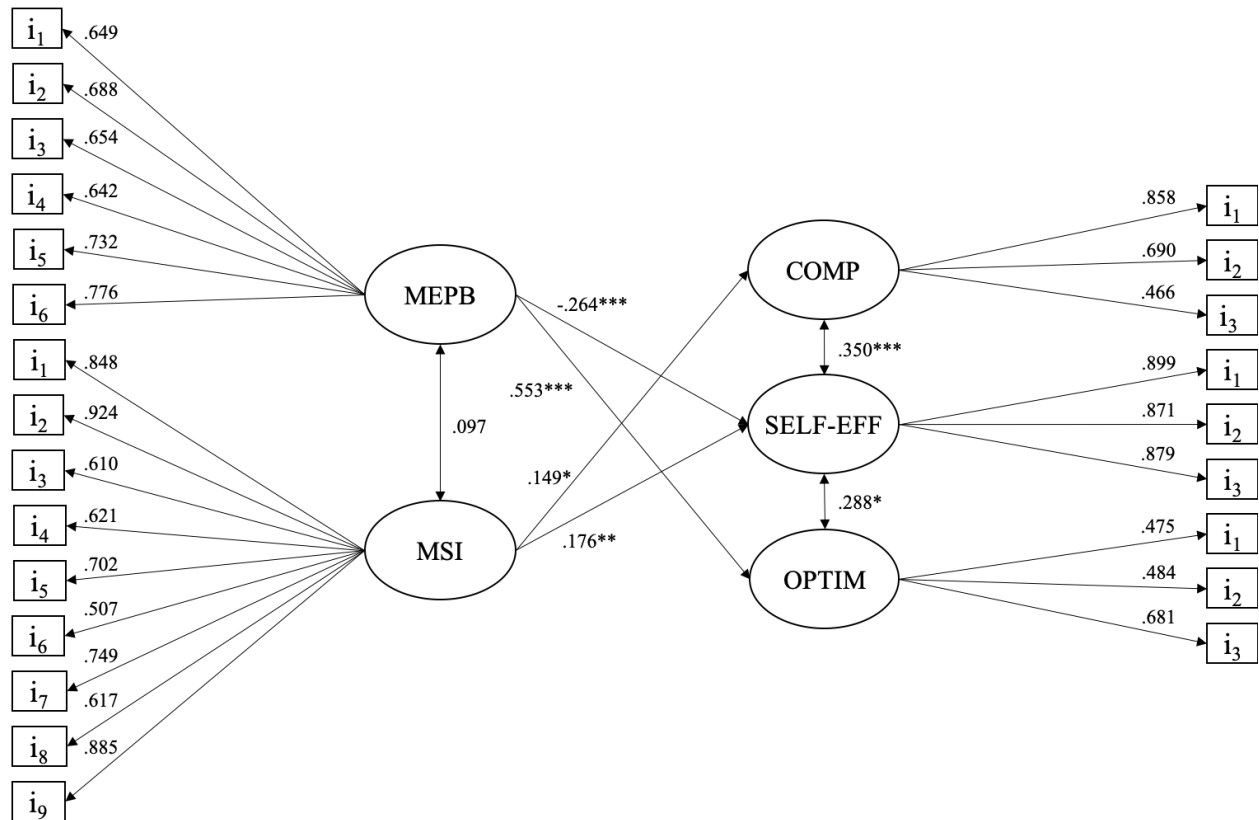
*Fit Indices of the Moral Evaluations and Humanistic Readiness Model*

	AIC	$\chi^2$	df	CFI	RMSEA (90% CI)	SRMR	Models $\Delta \chi^2$
Hypothesized (a)	12161.137	467.386	308	.900	.055 (0.043, 0.064)	.064	-
Adjusted (b)	12159	449.715	299	.905	.054 (0.043, 0.064)	.060	a & b: $p < 0.001$
Trimmed adjusted model – final model	12157.339	450.605	301	.906	.054 (0.044, 0.064)	.061	b & c: $p = .234$

**Figure 1**

*Moral Evaluations and Humanistic Readiness Structural Equation Model*

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*Note.* All factor loadings are significant at  $p < .01$ , correlations between endogenous factors depict correlations between the residuals of these factors, and correlations between exogenous predictors and covariates are described in-text. Only primary (theoretical) paths are shown. Paths involving covariates are described in text. Estimates are standardized.

\* $p \leq 0.1$ ; \*\* $p \leq 0.05$ ; \*\*\* $p \leq 0.01$

## Discussion

### Moral Evaluations of Self

Results show that among health professionals in California, having a greater sense of one's own morality (i.e. MSI) has small but significant positive associations with COMP and SELF-EFF towards patients with SUDs. If someone has a higher moral self, they might be less bogged down or stressed by self-doubt. MSI can be viewed here as a form of confidence, would

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presumably be associated with lower levels of stress, greater perseverance and flexibility, increased ability, and higher self-efficacy. According to Bandura, self-efficacy influences thoughts, actions, and emotional arousal, and accounts for differences in coping behaviors and abilities to respond to career stressors and failures (Bandura, 1982). Diclemente and colleagues (1985; 1986) showed that self-efficacy is useful for predicting behavioral change related to smoking, alcohol disorders, and eating disorders. To illustrate, a clinician who believes, “I am the kind of person who treats patients well,” will be more likely to think “I can treat patients well, because I *must*.” MSI should enable clinicians to stay centered and be more open to their patients, because their moral code tells them to engage wholly with their patients, irrespective of the difficulty thereof.

As for the relationship between MSI and compassion, compassion is part of a social–motivational system that involves the regulation of self-identity. It is a state which optimizes one’s ability to act in ways that are consistent with one’s “best possible self” (Cannon & Brosnan, 2012; Gilbert, 1984, 2012, 2014). Accordingly, the belief that one is living in a manner consistent with one’s best possible self (or, ‘moral self-image’) may be part of a feedback loop both with compassion and as well as with other self-perceived factors of morality. According to moral identity theory, individuals (a) see themselves as situated along a continuum of morality; and, (b) act in ways which aim to verify their self-placement upon that continuum, through an ongoing, self-regulating process (Burke & Stets, 2009; Stets & Carter, 2011) driven by a desire for self-consistency. When one’s self-evaluations of behaviors align with one’s concepts of moral self-identity, identity verification (i.e. validation) ensues. When they do not align, negative moods such as self-blame and shame ensue. This pertains to the findings of the present study in that if a health professional has a higher MSI and views compassion or self-efficacy as a ‘moral’



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characteristic, then his or her desire for self-consistency may explain the positive associations between MSI and those characteristics. This interpretation is consistent with the notion that the desire for self-consistency motivates thoughts and actions in the direction of personal moral identities (Blasi, 1993).

Viewed from another perspective, associations between low MSI and low levels of readiness to interact humanistically with patients might be illuminated by research on the effects of shame and self-blame among health professionals. In an overview of the inner experience of many clinicians dealing with the ongoing opioid crisis in the United States, one psychiatrist explained that when these clinicians experience guilt or feelings of complicity regarding their facilitation of patients' drug misuse, such feelings of self-blame often manifest in the form of defense mechanisms of 'projection' onto patients (Lembke, 2016). When this happens, clinicians' anger or disgust toward their own situations (specifically, their unwilling involvement in or facilitation of people's drug use disorders and/or shame or guilt regarding personal substance misuse) - is projected onto their patients (ibid).

Taken together, the positive effects of MSI on both COMP and SELF-EFF can be interpreted within the context of research which shows that caring for self and caring for others draw from a similar set of skills and competencies (Gilbert, 1989); research which indicates that caring involves nurturance and motivation to support both the self and others (Fogel et al., 1986); and research which shows that among volunteer workers for HIV services, self-focused motivations such as 'personal development' were more predictive of volunteers' duration of service, when compared with other-focused motivations such as 'community concern' (Snyder et al., 1999).

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### **Moral Evaluations of the Other**

The large positive association of MEPB with OPTIM and the small-to-medium negative association with SELF-EFF indicates that focusing on the morality of patient behaviors is associated with significantly higher levels of optimism but moderately lower levels of self-efficacy for treating patients with SUDs. These mixed effects may be explained as follows. When health professionals look at their patients and decide that their problems have anything to do with morality, they are faced with a series of choices in two categories. The first category includes giving up, feeling that their patients' problems are beyond repair, developing a sense of impatience with or disliking for said patients, or feeling discouraged or demoralized in their role as a clinician. The second category is fundamentally different. It includes activation of a sense of moral duty to support the patient, the triggering of a consideration of psychological, sociocultural, or environmental factors which the patient may be experiencing, and an increased likelihood to suggest treatment approaches which might support the patients' inner life. The finding of a negative association between MEPB and SELF-EFF falls into the first category. This finding is supported by literature on shame, which indicates that legalism, countertransference, and moral judgements are all associated with distorted views of patients' vulnerabilities and behavioral decisions (Rentmeester & George, 2009) - and is consistent with the position that moral disgust towards patients often leads to feelings of hopelessness or inefficacy on the part of health providers (Lembke, 2016). The finding of a positive association between MEPB and OPTIM falls into the second category.

### **Conclusion**

This study has a place in the growing body of literature on the importance of self-care and self-compassion, particularly among health providers and first responders. Hu (2020) refers

### STUDY 3: EVALUATIONS OF THE SELF AND OF THE PATIENT

to an existence of ‘appropriate’ and ‘inappropriate’ forms of moral “positioning”. Fortunately, the manifestations of one’s moral positions is not inevitable or immutable, since research indicates that people possess the ability to at least partially control their instincts and intuitions (Cotterill, 1998) by intentionally making themselves open to the influence of certain stimuli over others (Bermúdez et al., 1995; Marcel, 1983). The current study suggests that among professionals, attunement to *personal* moral strengths can enable greater readiness to interact humanistically with patients. Conversely, it suggests that attunement to the moral valence of *patient* behaviors can stimulate mixed effects. While the human tendency to consider issues (such as morality) according to predetermined mental frameworks is normal and facilitates cognitive emotional consistency and equilibrium (Aquino & Reed, 2002), this tendency may be manifested differently, and to different ends. The present study suggests that some versions of moral evaluations contribute to improved clinical care, while some lead to worsened clinical care. Future research would be aided by an exploration of distinctions between these forms.

#### **Limitations**

The cross-sectional nature of this study imposes limits on potential inferences of causality. The results may have been affected by the use of a convenience sample of participants who were surveyed using self-report measures. Depending on the availability of resources, future research should consider the use of a random sample of participants, as well as the use of multi-informant methods of data collection. Future research could also examine additional outcome variables such as behavioral (as opposed to just cognitive or emotional) correlates of moral evaluations. Finally, since the results of this study are only generalizable to health professionals, studies in the future might also explore the effects of moral evaluations among patient populations. It should be noted that the tool used to assess MSI here examines self-image based

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on descriptors of morality developed in a Western context (Aquino & Reed, 2002); this limits the generalizability of findings, given differences between Western and non-Western perspectives on morality (Markus & Kitayama, 1991; J. G. Miller et al., 2007).

#### **Conflicts of Interest**

This author declares no conflicts of interest.

#### **Compliance with Ethical Standards**

All procedures performed in this study were approved by the Institutional Review Board of Claremont Graduate University (CGU #3490).

## Study 4 Abstract

Many debates in the fields of public health, public policy, and bioethics focus on questions over whether or not - and if so, to what extent - behavioral health conditions should ever be framed or treated as moral issues. This study examines this question, focusing on a series of cognitive-emotional factors among health professionals who were prompted with questions about treating patients with substance use disorders (SUDs) – a category of behavioral disorders that is commonly discussed in moral terms. The predictor in this study is ‘moral evaluations of patient behaviors (MEPB)’ and the outcome variables are three types of ‘readiness to interact humanistically with patients’: (a) compassion toward patients with SUDs (COMP); (b) optimism toward the treatment of patients with SUDs (OPTIM), and, (c) self-efficacy for treating patients with SUDs (SELF-EFF). An explanation of the term ‘humanism’ as it is used in this study is provided. Survey data was collected from 570 health professionals (physicians, nurses, and other health professionals) in California, urban France, and urban China. Structural equation models (SEMs) indicate differential effects of MEPB on readiness to interact humanistically with patients between these countries. MEPB was positively associated with at least one factor of readiness to respond to patients humanistically in all samples (i.e. OPTIM across countries, with the addition of COMP and SELF-EFF in urban China). However, in the California sample MEPB was negatively associated with SELF-EFF. These results are discussed within the context of debates over moral models of addiction, moral identity, and humanism in patient care. Taken together, the findings of this study indicate that concepts about morality and humanism are socioculturally constructed, and that more nuanced perspectives on these subjects are needed.

*Keywords:* bioethics, moral psychology, clinical competence, substance use disorders, stigma, behavioral disorders, medical ethics

## STUDY 4: DIFFERENCES IN MORAL EVALUATIONS BY COUNTRY

### **Study 4: Differences in Moral Evaluations of Patient Behaviors among Health Professionals by Country**

#### **Moral Evaluations and Stigma**

The treatment of human health becomes moralized when patient behaviors are discussed in terms of right and wrong (e.g. the ‘good’ patient vs. the ‘bad’ patient). Research on moral evaluations in health care often equates moral emotions with judgmentalism, legalism, dogmatism, or *stigmatized* views. One study indicated that when clinicians are overly moralistic, their perceptions of their patients’ conditions become distorted and their relationships with colleagues become adversely affected (Rentmeester & George, 2009). More generally, the extent to which clinicians make or do not make moral judgements of patients’ behaviors can lead to distress and burnout among clinicians, interference with clinician teamwork, the erosion of trust between patients and practitioners (Pavlish et al., 2019), equitability in health care, workplace unprofessionalism (Barnett & Johnson, 2011; Knox & Hill, 2003), damages to patient-practitioner rapport (Hill et al., 1988), and blockage of the advancement of empirical science.

Many of the perspectives which advocate against moral models of behavioral disorders rest on the notion that moralized views are the same thing as stigmatized views. Among some, there exists a notion that stigma against behavioral disorders inevitably stems from etiological beliefs about these disorders as indicative of moral defect (Yang et al., 2007). Conflation of the constructs of ‘moralized’ and ‘stigmatized’ views suggests that all moralized views are problematic, as research shows that stigmatized views among health professionals result in less willingness to provide care to their patients (Carroll, 1995; Chappel et al., 1985; Davies & Huxley, 1997; Deehan et al., 1997; Karam-Hage et al., 2001; Norman, 2001; Roche & Richard,

## STUDY 4: DIFFERENCES IN MORAL EVALUATIONS BY COUNTRY

1991), and that negative feelings about working with people with substance use disorders are detrimental to substance users' access to health care services and support (Livingston et al., 2012; van Boekel et al., 2013).

While stigmatized views are by definition negative, this study posits that moralized views are not, as moralized views may simply consist of emotively-neutral, non-condemnatory evaluations regarding moral valence. To explain – the notion that a behavior is objectively 'wrong' or 'bad' does not necessarily suggest a disliking, disdain, or denigration of the person who engages in this behavior. In response to perspectives which hold that stigma against behavioral disorders inevitably stems from etiological beliefs about these disorders as indicative of moral defect (Yang et al., 2007), this study focuses on the following question: when health professionals view behavioral disorders as morally relevant, how does this impact the care that they provide to their patients?

Given that drug misuse is frequently discussed as a moral matter, and given that perceptions of immorality have been theoretically linked to feelings of stigma and discrimination against people who use drugs (Global Commission on Drug Policy, 2017), these theoretical questions are explored using: 1.) a measure of perspectives on the moral meaning/relevance of substance use disorders (SUDs) as a predictor variable, and, 2.) three measures of readiness to interact 'humanistically' with patients as outcome variables.<sup>2</sup>

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<sup>2</sup> In the bioethics literature, 'humanistic interactions' refer to non-technical, intangible skills and factors of clinical competence such as empathy, compassion, and interpersonal/communication skills (Domingues et al., 2009; Flin & O'Connor, 2008; Mitchell et al., 2011).

## STUDY 4: DIFFERENCES IN MORAL EVALUATIONS BY COUNTRY

### **Culturally Diverse Perspectives**

Perspectives on substance use - along with notions of morality and humanism - are socially and culturally determined (Buchtel et al., 2015; Shweder et al., 1997). One study indicated differences in understandings of morality between Western and Chinese samples of students, with Chinese descriptions tending to be more socially-oriented, as opposed to individually-oriented (Jia & Krettenauer, 2017). Similarly, concepts about humanism vary by culture. For example - societies that value group preferences over individual freedoms might view punitive responses to SUDs such as compulsory re-education camps as appropriate and humanitarian, whereas societies that maximally value individuality and autonomy might view such approaches as unjust or non-humanitarian (Human Rights Watch, 2008, 2010, 2020; West et al., 2019; World Health Organisation, 2009).

Regional perspectives on drug use are an outgrowth of multiple factors, including national histories, religious and philosophical beliefs, and cultural norms. A smaller study on a subset of the data used in this study indicated that religiosity and authoritarianism were positively associated with MEPB among health professionals in California (see Study 2). Furthermore, regional differences can be inferred through factors such as drug laws and the acceptance of harm-reduction treatments for drug misuse. The American approach to drug misuse is viewed by many as punitive or restrictive, as indicated historically by legislation such as the 1915 *Harrison Act*, the Prohibition of the 1920s, and the ongoing War on Drugs. By contrast, the European approach to drug misuse is comparatively-liberal (Oppenheimer, 1991; Reinerman & Levine, 1997), including environmental prevention programs, novel technologies, harm-reduction-based interventions, alternative holistic approaches to substance misuse, and a preponderance of outpatient services as opposed to inpatient treatments or incarceration



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(European Monitoring Centre for Drugs and Drug Addiction, 2019). While China offers numerous harm-reduction, holistic-care interventions and novel scientific treatments for SUDs (Su et al., 2020; West et al., 2019; Zhang et al., 2019), China's political stance toward drug misuse is stricter than that found both in the United States and in France, as evidenced by its compulsory encampment of persons with SUDs in rehabilitation centers. These camps have been the subject of much international criticism (Global Commission on Drug Policy, 2017; World Health Organisation, 2009) and efforts from within China are being made to improve the rights and working conditions of camp internees (Yinan & Yan, 2011).

### **Hypothesized Constructs**

This study develops and assesses four hypothesized constructs and evaluates the first construct as a predictor of the latter three. The first measure, moral evaluation of patient behaviors (MEPB), was developed and psychometrically evaluated in Studies 1, 2, and 3. The second three measures (i.e. compassion toward patients with SUDs (COMP), self-efficacy in assessing and responding to SUDs (SELF-EFF), and optimism towards treating patients with SUDs (OPTIM)), were developed and evaluated in Study 3. In this study, the outcome variables are in places referred to as a group of 'factors of readiness to interact with patients humanistically'. 'Humanistic' factors of clinical competence have been identified in medical and nursing literature as cognitive, social, and personal skills (Evans et al., 2018; Larkin, 1999; Pearson, 2011). These skills have traditionally been less emphasized when compared with technical skills such as work habits and medical knowledge, but in the past three decades the importance of these types of skills have been increasingly emphasized in medical and nursing literature (Pearson, 2011; Teixeira, 2005). Researchers have identified many humanistic factors of clinical competence including emotional intelligence, compassion,

#### STUDY 4: DIFFERENCES IN MORAL EVALUATIONS BY COUNTRY

interpersonal/communication skills, and the capacity for self-reflection (Domingues et al., 2009; Flin & O'Connor, 2008; Mitchell et al., 2011), but there exists a need for further research on dimensions of 'humanistic' factors of clinical competence.

The dimensions included in this study were selected because they have been associated positively with beneficial clinical interactions in the medical and nursing literature. According to one physician "Medical ethics is founded on the quest for justice, compassion, and love" (Teixeira, 2005). As such, compassion is emphasized in medical schools, hospitals (Domingues et al., 2009), and professional organizations (American Medical Association, n.d.; American Nurses Association, n.d.; National Association of Social Workers, n.d.) - even for situations in which a health professional is treating behaviors that may conflict with his or her moral beliefs (Christian Medical and Dental Association, 2018; Islamic Medical Association of North America, 2005). Although not all research on self-efficacy among clinicians is uniform and one study actually indicated a positive association between physicians' self-efficacy and patients' future alcohol use (Elwy et al., 2013), the majority of research on self-efficacy indicates this is a psychological factor which strengthens clinical interactions. For instance, research demonstrates positive relationships between self-efficacy and screening and referral for alcohol problems (Geller et al., 1989), time spent in counseling (Borrelli et al., 2001), effective clinical decision-making (Hollingsworth & Ford-Gilboe, 2006), and responsiveness to abuse victims (Hollingsworth & Ford-Gilboe, 2006). Similarly, optimism has been associated with positive clinical behaviors including responsiveness to women who have suffered abuse (Hollingsworth & Ford-Gilboe, 2006), possibly because of its oppositional effect on clinical burnout or "loss of faith" in one's "assumptive world" (Clarke, 2003, p. 166), and because it introduces avenues for meaning and creative solutioning in clinical settings (Wolf et al., 2018). For further information

## STUDY 4: DIFFERENCES IN MORAL EVALUATIONS BY COUNTRY

on associations between positive clinical interactions and the factors in this study, please refer to the following studies on clinical interactions and compassion (Buck et al., 2017; Domingues et al., 2009; Goldberg, 2008; Stern et al., 2008); self-efficacy (Fry & MacGregor, 2014; Hollingsworth & Ford-Gilboe, 2006; Shochet & King, 2013); and, optimism (Clarke, 2003; Roche et al., 1995; Wolf et al., 2018).

### Overview

This study examines the cross-sectional, predictive effect of MEPB on three factors of ‘readiness to interact humanistically with patients who have SUDs’: compassion towards patients with SUDs (COMP), self-efficacy in providing treatment to patients with SUDs (SELF-EFF), and optimism toward the treatment of patients with SUDs (OPTIM). These predictive effects were evaluated in a series of structural equation models. The measures were assessed among health professionals in California ( $n = 173$ ), urban France ( $n = 102$ ), and urban China ( $n = 249$ ). A previous study on a subset of the data used here indicated that among health professionals in California, MEPB is positively associated with OPTIM ( $r = 0.553, p < 0.01$ ) but negatively associated with SELF-EFF ( $r = -0.249, p < 0.01$ ) (see Study 3). The negative association was not present in either of the two other sampled countries; as such, this association may have been affected by the nature of moral evaluations in the United States in general and/or California in particular. More research is needed to explore this hypothesis. To date, the limited research that exists on MEPB in California suggests that in this area, this construct is positively correlated with religiosity and authoritarianism (See Study 2).

The diverse nature of moral evaluations between countries - along with a dearth of prior research on this topic - makes it difficult to hypothesize directional effects, whether globally or by country. In a study conducted among health workers in China, it was found that when the

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workers held more neutral or positive moral evaluations of risky AIDs-related behaviors, they also indicated more altruistic motivations for helping people with AIDs (Hu, 2020). Given that moral evaluations of drug misuse are presumably negative, the *a priori* hypothesis is that MEPB will be associated with lower readiness to interact with patients humanistically, across all factors (i.e. COMP, SELF-EFF, and OPTIM) and in all countries, with the exception of California, as the current question had already been explored in the California sample in Study 3. In order to increase the cross-cultural applicability of this research, the development of the research questions and design were based on discussions with researchers from the three countries examined in this study.

### Methods

#### Participants

Recruitment of participants began with the collection of contact information for health professionals from professional health organizations, along with post-graduate schools of medicine, nursing, and psychology. Requests for study participation were made using standard wording via email, social media, and telephone; response rates were approximately 10% across all three countries. In Paris, France, recruitment included intercepts at two public hospitals; in Shanghai, China, recruitment included intercepts at a mixture of five public and private hospitals. Recruitment scripts included information on the purpose and estimated duration of the study. Upon completion of the survey, participants were provided with the option of entry into a raffle for \$100, €90, and RMB ¥700, in California, urban France, and urban China, respectively. Eligibility was limited to respondents who self-identified as physicians, nurses, or “other health professionals.” The final samples consisted of 173, 102, and 249 health professionals from California, urban France, and urban China, respectively.

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### **Data Collection**

All of the data collection steps conformed to the ethical standards of the study protocol, which was approved by Claremont Graduate University's Institutional Review Board (CGU #3490). Surveys were created in English using Qualtrics, with the French and Simplified Chinese versions created with the support of professional translators. Surveys were distributed between July 1 and November 1, 2019; responses were provided by participants on mobile or desktop devices. In all countries, the online version of the survey was distributed. In China, hospital representatives provided translation assistance during in-person intercepts and recruitment efforts, and the option of a paper version of the survey was provided as an alternative to the online version offered on the web platform Qualtrics. All study participants provided informed consent before beginning the survey.

### **Measures**

All demographic and survey items are provided in the appendix.

#### ***Exogenous Variable***

The six-item measure of MEPB used in this study is specific to SUDs, and assesses the extent to which participants view SUDs as a matter of moral relevance. The measure used for the assessment of this construct was developed and evaluated in Study 1. Responses are scored on a scale of 1 to 4, with higher scores indicating a greater feeling that SUDs are a matter of moral concern.

#### ***Endogenous Variables***

The three endogenous constructs examined in this study (i.e. the presumed outcomes of MEPB) were compassion for patients with SUDs (COMP), self-efficacy for assessing and responding to SUDs (SELF-EFF), and optimism toward the treatment of patients with SUDs

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(OPTIM). Measures for these constructs were developed and evaluated in Study 3. COMP was assessed using a three-item measure which evaluated dispositional tendencies toward compassion for patients with SUDs. Response options were available on a seven-point Likert scale, on which higher scores suggested greater compassion for patients with SUDs. This measure had a Cronbach's  $\alpha$  of 0.681 in the California sample, 0.677 in the urban France sample, and 0.817 in the urban China sample. SELF-EFF was assessed using a three-item measure with a four-point Likert scale response format, on which higher scores suggesting greater self-efficacy for assessing and responding to patients with SUDs. This measure had a Cronbach's  $\alpha$  of 0.913 in the California sample, 0.911 in the urban France sample, and 0.836 in the urban China sample. OPTIM was assessed using a three-item measure. Responses options were available on a seven-point Likert scale response format, on which higher scores suggesting greater optimism regarding the treatment of patients with SUDs. This measure had a Cronbach's  $\alpha$  of 0.508 in the California sample, 0.985 in the urban France sample, and 0.547 in the urban China sample.

### **Data Analysis**

In order to test the operation of measures across groups, a measurement invariance analysis was conducted using a multiple-group structural equation model (SEM). Model 1 tested for invariance at the level of 'configural invariance', in which the same pattern of factor loadings was specified for each group and no equality constraints were used across groups. Model 2 tested for invariance at a stronger level, sometimes referred to as the level of 'metric invariance' (Horn & McArdle, 1992). In this model, equality constraints were added to all factor loadings, but not to regression paths. Differences between the increasingly nested models were assessed using the Satorra-Bentler  $\chi^2$  correction formula for robust parameter estimation (Bryant & Satorra, 2012; Byrne, 2012). The  $\chi^2$  difference between Model 1 and Model 2 was significant at  $p < 0.001$ ; as

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such, Model 1 was retained, indicating the establishment of measurement invariance at the configural level only and implying that it would be inappropriate to make statistical comparisons across groups in regression paths. While configural invariance indicates that results across groups can at least be considered at a conceptual level, conclusions must be tempered by the recognition that the constructs in question are measured somewhat differently across groups (Byrne, 2012; Horn & McArdle, 1992; Muthén & Muthén, 2010; Vandenberg & Lance, 2000).

To account for differences in the operation of the constructs of focus across countries, three initial single-group SEMs were run - one for each country. In these models, MEPB served as an exogenous predictor variable; COMP, SELF-EFF, and OPTIM served as endogenous outcome variables; age, sex, and occupation were included as covariates with the foregoing variables in the variance–covariance matrix to be reproduced by the models; and correlations were estimated both among independent variables (i.e. MEPB and covariates) and among endogenous factor residuals (i.e. COMP, SELF-EFF, and OPTIM). Items with factor loadings below 0.35 were subsequently removed from the study; items which were removed from all of the models are marked with italicized notes in the survey, which is provided in the appendix. Items that were removed only for certain countries were OPTIM Item 3 in the France model, OPTIM Item 4 in the China model, and COMP Item 4 in the France model. Items were only removed in single-group models, with multiple-group models including all items in each group.

An initial model within each country group was compared against a nested, adjusted model, which served as a test for any predictive effects of covariates on the outcome factors. Nested adjusted models included nine additional regression paths - one for each dependent variable regressed on MEPB, age, gender, and occupation. Satorra-Bentler  $\chi^2$  difference tests were run to assess for differences between initial and nested models. If the  $\chi^2$  difference was not

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significant, the more parsimonious model which included fewer parameters was retained. If any of the primary regression paths (i.e. those of COMP, SELF-EFF, or OPTIM on MEPB) in the retained model were not significant on the basis of z-tests, the retained model was subsequently compared against a trimmed version in which the non-significant path was fixed to zero. The Satorra-Bentler  $\chi^2$  difference tests were again used to determine whether initially retained or trimmed models would be the final models. Regression paths across all models were compared within groups to assess for major changes in their valence or magnitude. The final model syntax is presented in Appendix A and the data is available on the Open Science Framework.

In all of the models, missing data were treated using full information maximum likelihood (FIML); this approach allows for the use of all data without listwise deletion and has certain strengths over multiple alternate approaches, including multiple imputation (Graham, 2012; Jakobsen et al., 2017; Pfaffel et al., 2016). Data for all MEPB items were missing for 0%, 4.42%, and 7.84% of the California, urban China, and urban France samples, respectively. Such differences in data missingness may be attributed to differences in survey administration across the three locations: while surveys were available in California in an online format in which the forced response option was activated, surveys were available in France and China in both online and paper formats with no forced response option activated. There was no partial data missingness on MEPB items.

Certain general recommendations in the SEM literature provide support for the sample sizes that were used in this study. These include recommendations of at least ten participants per variable (Cattell, 1978; Everitt, 1975; Gorsuch, 1983), and at least one hundred participants in total (Boomsma, 1985). A priori criterion for good model fit were set at  $\chi^2/df \leq 3.00$ , SRMR  $\leq .08$ , CFI  $\geq 0.95$ , and RMSEA  $\leq .06$ .



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Results

Table 1

Study 4 means and standard deviations of survey scores among health professionals currently or previously working in California, urban France, and urban China

		MEPB	COMP	SELF-EFF	OPTIM
		<i>n</i> = 173	<i>n</i> = 173	<i>n</i> = 173	<i>n</i> = 173
California	<i>Age group</i>	1.60(.63)	4.67(1.07)	2.54(.84)	2.49(.94)
	18-24	1.93(.53)	4.85(.66)	2.14(.79)	3.00(.82)
	25-44	1.58(.66)	4.60(1.05)	2.46(.87)	2.48(.95)
	45+	1.58(.60)	4.71(1.13)	2.64(.80)	2.45(.94)
	<i>Gender</i>				
	Male	1.71(.69)	4.46(1.06)	2.86(.86)	2.68(.96)
	Female	1.57(.61)	4.72(1.08)	2.46(.82)	2.44(.94)
	<i>Occupation</i>				
	Physician	1.61(.67)	4.90(.99)	2.59(.83)	2.55(.87)
	Nurse	1.64(.59)	4.62(1.13)	2.45(.74)	2.45(.99)
Other*	1.56(.64)	4.58(1.08)	2.56(.89)	2.48(.96)	
		<i>n</i> = 102	<i>n</i> = 99	<i>n</i> = 90	<i>n</i> = 87
Urban France	<i>Total</i>	1.58(.57)	4.65(.87)	2.67(.67)	2.87(1.11)
	<i>Age group</i>				
	18-24	1.55(.10)	5.11(.19)	1.67(.88)	2.56(.38)
	25-44	1.65(.62)	4.62(.92)	2.37(.89)	2.89(1.19)
	45+	1.50(.52)	5.09(.66)	2.48(.93)	2.86(1.04)
	<i>Gender</i>				
	Male	1.57(.60)	4.75(.75)	2.50 (.91)	2.91(1.16)
	Female	1.60(.54)	4.53(.97)	2.27(.90)	2.82(1.08)
	<i>Occupation</i>				
	Physician	1.56(.55)	5.11(.08)	2.36(.83)	3.01(1.08)
Nurse	1.61(.54)	5.20(.14)	2.61(1.04)	2.39(.89)	
Other*	1.63(.68)	4.96(.13)	2.26(1.01)	2.86(1.33)	
		<i>n</i> = 249	<i>n</i> = 246	<i>n</i> = 238	<i>n</i> = 232
Urban China	<i>Total</i>	2.51(.76)	4.04(1.32)	2.18(.72)	4.42(1.08)
	<i>Age group</i>				
	18-24	2.45(.67)	4.12(1.12)	2.22(.72)	4.24(1.07)
	25-44	2.54(.80)	3.98(1.38)	2.20(.74)	4.40(1.11)
	45+	2.45(.71)	4.18(1.28)	2.07(.70)	4.67(.97)
	<i>Gender</i>				
	Male	2.48(.74)	4.13(1.43)	2.27(.83)	4.42(1.17)
	Female	2.52(.77)	4.01(1.28)	2.15(.68)	4.42(1.06)
	<i>Occupation</i>				
	Physician	2.46(.68)	4.19(1.32)	2.19(.72)	4.51(1.11)
Nurse	2.66(.82)	3.96(1.33)	2.20(.75)	4.35(1.02)	
Other*	2.28(.72)	3.96(1.30)	2.15(.68)	4.43(1.18)	

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The Cronbach's  $\alpha$  for items on each latent factor suggested good internal consistency in each measure. After a CFA was run for all items, those with low factor loadings (OPTIM Item 1 and COMP Item 3 in the France model, and OPTIM Item 2 in the China model) were removed. In the California model, item loadings on MEPB ranged from 0.639 to 0.774, on COMP from 0.467 to 0.859, on SELF-EFF from 0.880 to 0.900, and on OPTIM from 0.480 to 0.680. In the urban France model, item loadings on MEPB ranged from 0.595 to 0.768, on COMP from 0.682 to 0.754, on SELF-EFF from 0.853 to 0.920, and on OPTIM from 0.956 to 1.015. Finally, in the urban China model, item loadings on MEPB ranged from 0.545 to 0.770, on COMP from 0.633 to 0.869, on SELF-EFF from 0.761 to 0.863, and on OPTIM from 0.384 to 0.979. Results of a multiple-group CFA model supporting configural invariance for all latent factors indicated a good model fit:  $\chi^2/df = 1.455$ , RMSEA = 0.051, and CFI = 0.950; SRMR = 0.066. The goodness of fit indices and reliability indices indicated reasonable convergence of measure items.

When comparing each of the models run *within country* in the single group structural models, comparisons of regression paths between the hypothesized, adjusted, and trimmed models indicated an absence of notable changes in the valence or magnitude of paths within country. This suggests that neither the inclusion nor omission of covariate paths made an important difference in the results in any country group.

The final model retained for California was a trimmed, adjusted model in which SELF-EFF is negatively associated with gender at  $\beta = -0.440$ ,  $p < .01$ , indicating higher levels of self-efficacy among men than women. In this model, OPTIM is strongly positively associated with MEPB at  $\beta = .558$ ,  $p < .01$ ,  $R^2 = .336$ , and SELF-EFF is negatively associated with MEPB at  $\beta = -.249$ ,  $p = .01$ ,  $R^2 = .119$ . Item loadings on MEPB range from 0.639 to 0.774, on COMP from

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0.467 to 859, on SELF-EFF from 0.871 to .900, and on OPTIM from 0.480 to 680. Correlations between independent variables (i.e. MEPB and the covariates) range from -.020 to 0.097; none are statistically significant (all  $p$ 's > 0.1).

The final model retained for France was the model hypothesized initially, since other model tests revealed no confounding or prediction from age, gender, or occupation. This model indicates that OPTIM is moderately positively associated with MEPB at  $\beta = 0.404$ ,  $p < .01$ ,  $R^2 = .164$ . Item loadings on MEPB range from 0.595 to .768, on COMP from 0.682 to .754, on SELF-EFF from 0.853 to 874, and on OPTIM from 0.956 to 1.01; correlations among independent variables range from .018 ( $p = .886$ ) to -.176 ( $p = .058$ ). Correlations between independent variables (i.e. MEPB and the covariates) range from 0.018,  $p = 0.886$  to -0.176,  $p = 0.058$ .

The final model for China was the initial model, also given that no confounding effect was found for age, gender, or occupation. This model indicates small associations between MEPB and COMP:  $\beta = 0.259$ ,  $p < .01$ ,  $R^2 = .067$ ; between MEPB and SELF-EFF:  $\beta = 0.187$ ,  $p < .05$ ,  $R^2 = .035$ ; and between MEPB and OPTIM:  $\beta = 0.303$ ,  $p < .227$ ,  $R^2 = .092$ . Item loadings on MEPB range from 0.549 to 0.770, on COMP from 0.633 to 0.869, on SELF-EFF from 0.761 to 0.863, and on OPTIM from 0.384 to 0.979. Correlations between independent variables (i.e. MEPB and the covariates) range from -0.002,  $p = 0.972$  to 0.297,  $p < 0.001$ .

All model fit indices are displayed in Table 2. Regression paths and correlations for the final models are indicated in Figure 1. All correlations and the covariance matrix are available from the author.

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**Table 2**

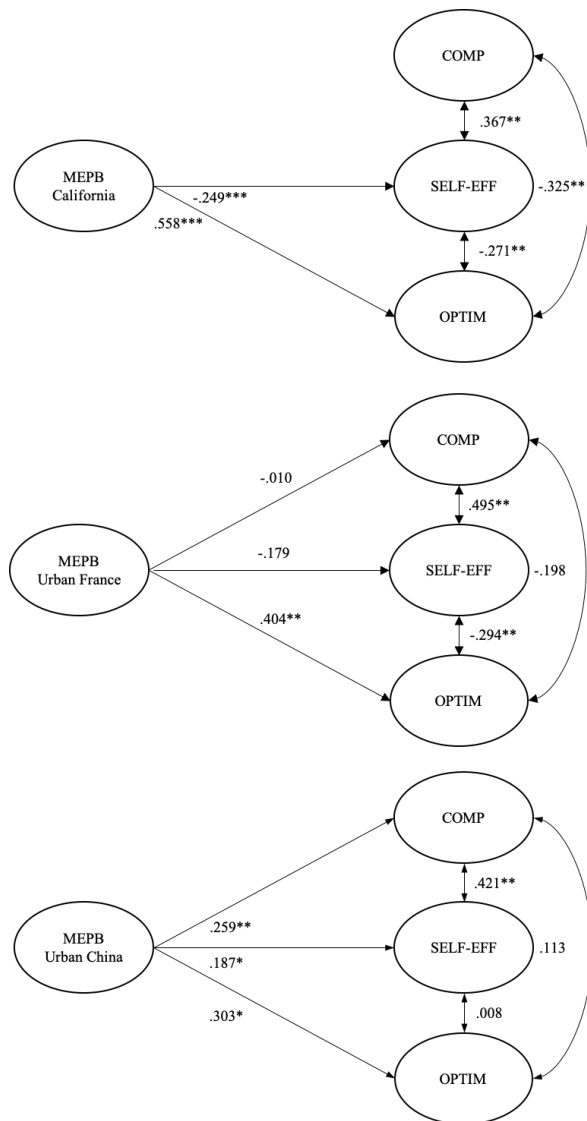
*Fit Indices of Moral Evaluation and Humanistic Readiness Models*

	AIC	$\chi^2$	df	CFI	RMSEA	SRMR	Models $\Delta \chi^2$
<b>California</b>							
Initial Model (a)	7484.808	178.382	126	.936	.049	.066	-
Adjusted Model (b)	7483.966	160.738	117	.947	.046	.057	a & b: $p < 0.001$
Trimmed Adjusted Model (c) – Final Model	7483.099	161.491	118	.947	.046	.058	b & c: $p = .294$
<b>Urban France</b>							
Initial Model (d) – Final Model	3351.777	135.057	95	.932	.062	.074	-
Adjusted Model (e)	3363.360	129.667	86	.925	.068	.067	d & e: $p = .2467$
Trimmed Initial Model (f)	3361.720	131.684	88	.915	.067	.080	d & f: $p < .01$
<b>Urban China</b>							
Initial Model (g) – Final Model	10881.481	141.821	110	.969	.033	.046	-
Adjusted Model (h)	10895.442	137.148	101	.964	.037	.044	g & h: $p < 0.001$

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**Figure 1**

*Moral Evaluations and Humanistic Readiness Structural Equation Model*



*Note.* All factor loadings are significant at  $p < .01$ . Correlations between endogenous factors depict correlations among the residuals of these factors, and ranges of correlations between MEPB and covariates are provided in-text. Standardized parameter estimates are shown.

\*Paths significant at  $p \leq 0.1$ ; \*\*Paths significant at  $p \leq 0.05$ ; \*\*\*Paths significant at  $p \leq 0.01$

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### Discussion

According to many perspectives, addiction should never be treated as a type of moral failing (Lewis, 1993; Matano & Wanat, 2000; McCarthy, 2016) since moralizing addiction has led to punitive/legalistic responses to people who suffer from it. These responses include dismissal, shaming, mistreatment, and neglect (Allen, 2011; Koenig et al., 2012; Szalavitz, 2016). These perspectives rest on the notion that moralized views are the same thing as stigmatized views, or that stigma inevitably stems from views about human behaviors as morally deficient. Conflation of the constructs of ‘moralized’ and ‘stigmatized’ views would indeed suggest that moralized views are problematic, as research on stigma indicates that it is associated with a wide range of negative health outcomes.

However, in this study MEPB was positively associated with OPTIM across all countries, as well as with COMP and SELF-EFF in urban China. These associations contrast with the position that moral judgements in clinical settings are universally or inevitably problematic, suggesting instead that among health professionals in three countries, they can be associated with at least one factor of ‘readiness to interact humanistically with patients’. While stigmatized views are by definition negative, this study intriguingly indicates that moralized views are not, as moralized views may simply consist of emotively-neutral, non-condemnatory evaluations regarding moral valence. To explain – the notion that a behavior is objectively ‘wrong’ or ‘bad’) does not necessarily suggest a disliking, disdain, or denigration of the person who engages in this behavior. This finding highlights a need for distinguishing concepts about stigma from concepts about morality.

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This finding must be tempered with the recognition that interpretation is difficult because the cultural context of this study is complex and the results of the measurement invariance analysis indicated only weak measurement invariance. More research is needed in order to understand what might drive this effect. One possibility is that MEPB is associated with feelings of moral obligation – a cognitive-emotional or spiritual construct which would presumably drive clinicians' desire to engage humanistically with their patients. One of the most intriguing suggestions from these findings is evidence for a distinction between 'moralized' and 'stigmatized' views. While stigmatized views are by definition negative, moralized views are not; in theory, then, the latter may simply consist of emotively-neutral, non-condemnatory evaluations regarding moral valence (i.e. the notion that certain behaviors are objectively 'right or wrong' or 'good or bad'). This finding highlights a need for distinguishing concepts about stigma from concepts about morality. The focus for clinical education, then, should be on how personal moral emotions can be experienced and expressed in ways that drive healthy interactions and patient behaviors.

Consistent with the a priori hypothesis in this study, there was one negative association found between MEPB and a factor of 'readiness to interact humanistically' with patients: specifically, in the California sample, a negative association between MEPB and SELF-EFF. It is possible that the more a condition is considered 'moral', the more it is considered as within the control of the patient. Inherent to such an assumption might be the belief that the responsibility for recovery lies more within the patient to pull himself or herself out of his or her condition. Conversely, if a condition was considered anything other than moral, the treatment for it would lie more within the power of external factors – whether on the part of the clinician, or on the part of family or social services in the patients' community - to help the patient recover. It is possible

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that limitations in the social environment and health care system for treating patients with SUDs in California (or the United States) underlie the negative associations between health professionals' moral evaluations perceived self-efficacy for treating patients with SUDs.

It is also possible that the negative association between MEPB and SELF-EFF in the California sample relates to health providers' perceptions of their personal roles and responsibilities. For instance, health professionals in the United States who have higher moral evaluations of patients' behaviors may also experience greater feelings of moral duty toward their patients. In these cases, these practitioners might feel a greater burden of responsibility to alleviate or cure their patients, and the prospect of (or actuality of) the inability to do this may explain a decreased sense of self-efficacy. The reason that this effect is not seen in France and is reversed in China may relate to the resources that these countries have for treating SUDs. In both of these countries there exists a wide acceptance of medication-assisted treatment and other harm-reduction programs for SUDs, and in China, acceptable responses to SUDs additionally include incarceration and other retributive measures.

In order to understand the differential effects by construct and country, it may be useful to explore country-based differences associated with concepts of morality. Citing foundational literary figures from both Western and Eastern cultures, one author notes that: "Western cultures generally consider human nature as originally selfish and evil, while Chinese culture generally believes that human nature is originally good" (Hu, 2020, p. 349). In the last two millenia, Western cultures have been shaped largely by religious influences – most notably, Roman Catholicism and Christianity. In the modern era, American society has been disproportionately shaped by religiosity, when compared with the comparatively secular societies of both France and of China. To illustrate – in a 2013 Global Attitudes Survey conducted across 39 countries,



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53% of participants in the United States stated that they believed it was necessary to believe in God to be moral, while in France this percentage ranked lowest among all surveyed nations, at 15% (Pew Research Center, 2014).

It is therefore possible that religiosity or belief in a personal God is relevant to the low level of measurement invariance as well as to distinctions between predictive effects of MEPB on SELF-EFF and OPTIM in the United States. For example, if a person is religious or believes in the supremacy or power of a higher power - as it relates to patient behaviors - then he or she may feel that the power of healing is not necessarily within his or her control. This might thereby cause that person to feel less self-efficacious in treating patient behaviors, but simultaneously more optimistic, since he or she might believe in the capacity of this higher power to inspire hope and healing that transcends the limits of human capabilities. Scriptures on healing from the traditions of Christianity, Judaism, and Islam all provide evidence for this supposition: (a) "...for I am Hashem that health thee" (Torah, 1917/2020, Exodus 15:26b); (b) "And wherever [Jesus] went... they begged him to let them touch even the edge of his cloak, and all who touched it were healed" (New International Version, 1978/2020, Mark 6:56); and, (c) the Ayat Ash-Shifa, or Quranic Verses of Healing, include the following: "And [God] shall heal the breast of the believers" (Qur'an in English, 2014, Yunus 10:57).

Although morally-based responses to SUDs have been shown in some places to be tragically and ineffectually destructive, this study suggests that the subject of morality as it relates to SUDs is not categorically or universally problematic. As such, results from this study support the view that morality does not need to be eliminated from perspectives of mental illness or addiction, but rather that more balanced perspectives on potential moral relevancies of mental illness are needed. This finding supports the position that addiction may be discussed at least

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partially as a disorder-of-choice (Heather, 2017), and that effective treatments for it may be informed by recognition and discussion of addiction as a matter of ethical, philosophical, and/or spiritual implications, both for afflicted individuals and for society at large (Carter & Hall, 2012; Poland & Graham, 2011; Shepley, 2011), such as is already done in step four of a wide range of 12-step programs for addiction (Wagener, 2020) (i.e. the step of taking a moral inventory of one's life). Future research is needed to understand distinctions between 'legitimate moral appraisals' and 'illegitimate moral appraisals' in healthcare settings (Hill, 2010). To investigate this question, future studies may explore distinctions between types of moral appraisals, in order to determine which types contribute to, rather than detract from, positive clinical outcomes.

#### **Limitations**

Any findings of differences by country must be tempered/qualified with the recognition of weak measurement invariance by country. It is not surprising that the measures which were used in this study operated somewhat differently by country, given that people's views on morality and humanitarianism are shaped by culture-bound views on ethics and sociopolitical norms/ideals (Dickenson, 1999; Poh-Wah, 2002; Yao, 2000). Limitations of the current study also include the cross-sectional design, which prevents causal interpretation, the convenience sample, and use of only a single method of measurement (self-report surveys). Furthermore, the generalizability of the findings of this study are limited by vagueness of the wording for the category of 'other health professional'. Finally, although some perspectives from the SEM suggest that the sample size used in this study was sufficient, future studies would be aided by the use of larger sample sizes. The benefit of using larger sample sizes is based on the fact that many general guidelines for sample sizes in the SEM literature are not model-specific (MacCallum et al., 1999; Wolf et al., 2013) and furthermore, that the possibility of Type I errors

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is inflated when using sample sizes under 250 (Hu & Bentler, 1999; Schreiber et al., 2006).

Future exploration of the current research questions would be aided by more rigorous study designs. Future studies might explore the effects of moral evaluations among patients on clinical outcomes, as well as the health implications of moral evaluations behaviors beyond just substance misuse (e.g. dietary habits, risky sexual behaviors, and other behavioral disorders).

#### **Ethical Compliance**

This study was conducted in compliance with the predetermined protocol of Claremont Graduate University's Institutional Review Board (CGU #3490). Study protocol and activities were conducted with no conflicts of interest.

## References

- Allen, V. (2011). Adverse psychological effects of punitive and legalistic approaches to moral decision-making and institutional compliance. *Testamentum Imperium*, 3, 1–34.  
[http://www.preciousheart.net/ti/2011/056\\_Owolagba\\_Forgiveness\\_Freedom\\_Shame.pdf](http://www.preciousheart.net/ti/2011/056_Owolagba_Forgiveness_Freedom_Shame.pdf)
- Altemeyer, B. (1981). *Right-wing authoritarianism*. University of Manitoba Press.
- American Medical Association. (n.d.). *AMA Code of Medical Ethics*. American Medical Association. Retrieved February 9, 2019, from <https://www.ama-assn.org/delivering-care/ethics/code-medical-ethics-overview>
- American Nurses Association. (n.d.). *Nursing Code of Ethics*. American Nurses Association. Retrieved February 9, 2019, from <https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/>
- Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83(6), 1423–1440. <https://doi.org/https://doi.org/10.1037/0022-3514.83.6.1423>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/https://doi.org/10.1037//0033-295X.84.2.191>
- Bandura, A. (1978). Reflections on self-efficacy. *Advances in Behaviour Research and Therapy*, 1(4), 237–269. [https://doi.org/https://doi.org/10.1016/0146-6402\(78\)90012-7](https://doi.org/https://doi.org/10.1016/0146-6402(78)90012-7)
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Bandura, A. (1997). *Self-efficacy : the exercise of control*. W.H. Freeman and Company.

<https://ccl.on.worldcat.org/oclc/36074515>

- Bandura, A. (1999). Social cognitive theory: an agentic perspective. *Asian Journal of Social Psychology*, 2(1), 21–41. <https://doi.org/https://doi.org/10.1111/1467-839X.00024>
- Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science*, 1(2), 164–180. <https://doi.org/https://doi.org/10.1111/j.1745-6916.2006.00011.x>
- Barnett, J., & Johnson, W. B. (2011). Integrating spirituality and religion into psychotherapy: Persistent dilemmas, ethical issues, and a proposed decision-making process. *Ethics & Behavior*, 21(2), 147–164. <https://doi.org/https://doi.org/10.1080/10508422.2011.551471>
- Bermúdez, J., Marcel, A., & Eilan, N. (1995). *The Body and the Self*. MIT Press.
- Blasi, A. (1993). The development of identity: some implications for moral functioning. In G. Noam & T. Wren (Eds.), *The Moral Self* (pp. 99–122). The MIT Press.
- Boomsma, A. (1985). Nonconvergence, improper solutions, and starting values in lisrel maximum likelihood estimation. *Psychometrika*, 50(2), 229–242. <https://doi.org/10.1007/BF02294248> LK - <https://ccl.on.worldcat.org/oclc/5655893959>
- Borrelli, B., Hecht, J. P., Papandonatos, G. D., Emmons, K. M., Tatewosian, L. R., & Abrams, D. B. (2001). Smoking-cessation counseling in the home: attitudes, beliefs, and behaviors of home healthcare nurses. *American Journal of Preventive Medicine*, 21(4), 272–277. <https://doi.org/https://doi.org/10.1007/BF01548253>
- Bryant, F. B., & Satorra, A. (2012). Principles and practice of scaled difference chi-square testing. *Structural Equation Modeling: A Multidisciplinary Journal*, 19, 372–398. <https://doi.org/https://doi.org/10.1080/10705511.2012.687671>
- Buchtel, E. E., Guan, Y., Peng, Q., Su, Y., Sang, B., Chen, S. X., & Bond, M. H. (2015). Immorality East and West: Are Immoral Behaviors Especially Harmful, or Especially

- Uncivilized? *Personality and Social Psychology Bulletin*, 41(10), 1382–1394.  
<https://doi.org/10.1177/0146167215595606>
- Buck, E., Holden, M., & Szauter, K. (2017). Changes in Humanism During Medical School: a Synthesis of the Evidence. *Medical Science Educator*, 27(4), 887–893.  
<https://doi.org/10.1007/s40670-017-0438-9>
- Burke, P., & Stets, J. E. (2009). *Identity Theory*. Oxford University Press.
- Byrne, B. M. (2012). *Structural Equation Modeling with Mplus*. Routledge.
- Cahill, L. S., & Farley, M. A. (1995). *Embodiment, morality, and medicine* (L. S. Cahill & M. A. Farley (Eds.); 6th ed.). Kluwer Academic.
- Cannon, D., & Brosnan, P. (2012). *In-depth acting*. Oberon Books.  
<https://ccl.on.worldcat.org/oclc/826638663>
- Carter, & Hall, W. (2012). *Addiction neuroethics : the promises and perils of neuroscience research on addiction* (NV-1 onl). Cambridge University Press.  
<http://public.eblib.com/choice/publicfullrecord.aspx?p=788012>
- Cattell, R. B. (1978). *The scientific use of factor analysis*. Plenum.
- Chappel, J. N. (1977). Physician attitudes. Effect on the treatment of chemically dependent patients. *JAMA: The Journal of the American Medical Association*, 237(21), 2318–2319.  
<https://doi.org/10.1001/jama.237.21.2318>
- Chappel, J. N., & Veach, T. L. (1987). Effect of a course on students' attitudes toward substance abuse and its treatment. *Journal of Medical Education*, 62(5), 394–400.  
<https://ccl.on.worldcat.org/oclc/114313784>
- Chappel, J. N., Veach, T. L., & Krug, R. S. (1985). The substance abuse attitude survey: an instrument for measuring attitudes. *Journal of Studies on Alcohol*, 46(1), 48–52.

<https://ccl.on.worldcat.org/oclc/116017368>

Christian Medical and Dental Association. (2018). *Individual Position Statements - AIDS*.

<https://cmda.org/wp-content/uploads/2018/04/aids-with-references.pdf>

Ci, J. (2014). *Moral China in the Age of Reform*. Cambridge University Press.

<http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=3006267>

Clarke, D. (2003). Faith and hope. *Australasian Psychiatry*, 11(2), 164–168.

<https://doi.org/https://doi.org/10.1046/j.1039-8562.2003.00550.x>

Commonwealth of Australia. (2004). *Models that help us understand AOD use in society*.

Australian Government Department of Health.

<https://www1.health.gov.au/internet/publications/publishing.nsf/Content/drugtreat-pubs-front5-wk-toc~drugtreat-pubs-front5-wk-secb~drugtreat-pubs-front5-wk-secb-3~drugtreat-pubs-front5-wk-secb-3-4>

Cotterill, R. (1998). *Enchanted looms: conscious networks in brains and computers*. Cambridge

University Press. <https://ccl.on.worldcat.org/oclc/48140015>

Dickenson, D. L. (1999). Cross-cultural issues in European bioethics. *Bioethics*, 13(3–4), 249–

255. <https://doi.org/10.1111/1467-8519.00153>

Diclemente, C. C. (1986). Self-Efficacy and the Addictive Behaviors. *Journal of Social and*

*Clinical Psychology*, 4(3), 302–315.

DiClemente, C. C., Prochaska, J. O., & Gibertini, M. (1985). Self-efficacy and the stages of self-change of smoking. *Cognitive Therapy and Research*, 9(2), 181–200.

<https://doi.org/10.1007/BF01204849>

Dien, D. S. F. (1982). A Chinese perspective on Kohlberg's theory of moral development.

*Developmental Review*, 2(4), 331–341. [https://doi.org/10.1016/0273-2297\(82\)90017-X](https://doi.org/10.1016/0273-2297(82)90017-X)

- Domingues, R. C., Amaral, E., & Zeferino, A. M. (2009). Global overall rating for assessing clinical competence: what does it really show? *Medical Education*, 43(9), 883–886.  
<https://doi.org/10.1111/j.1365-2923.2009.03431.x>
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. *Advances in Experimental Social Psychology*, 33, 41–113.
- Elwy, A., Horton, N., & Saitz, R. (2013). Physicians' attitudes toward unhealthy alcohol use and self-efficacy for screening and counseling as predictors of their counseling and primary care patients' drinking outcomes. *Substance Abuse Treatment, Prevention, and Policy*, 8(1), 1–8.  
<https://doi.org/10.1186/1747-597X-8-17>
- Embretson, S. E., & Reise, S. P. (2000). *Item response theory for psychologists*. Erlbaum.
- European Monitoring Centre for Drugs and Drug Addiction, (EMCDDA). (2019). European Drug Report: Trends and Developments. In *European Union Publications Office*.  
[http://www.emcdda.europa.eu/system/files/publications/4541/TDAT17001ENN.pdf\\_en](http://www.emcdda.europa.eu/system/files/publications/4541/TDAT17001ENN.pdf_en)
- Evans, Pawlina, W., & Lachman, N. (2018). Human skills for human[istic] anatomy: An emphasis on nontraditional discipline-independent skills. *Anatomical Sciences Education*, 11(3), 221–224. <https://doi.org/10.1002/ase.1799>
- Everitt, B. S. (1975). Multivariate analysis: The need for data, and other problems. *British Journal of Psychiatry*, 237–240.
- Feldman, S., & Stenner, K. (1997). Perceived threat and authoritarianism. *Political Psychology*, 18(4), 741–770. <https://ccl.on.worldcat.org/oclc/5546693981>
- Flin, & O'Connor. (2008). *Safety at the Sharp End: A Guide to Non-Technical Skills*. Ashgate Publishing Limited.
- Fogel, A., Melson, G., & Mistry, J. (1986). Conceptualising the determinants of nurturance: A



- reassessment of sex differences. In *Origins of nurturance: Developmental, biological and cultural perspectives on caregiving* (pp. 69–90). Lawrence Erlbaum Associates.
- Fry, M., & MacGregor, C. (2014). Confidence and impact on clinical decision-making and behaviour in the emergency department. *Australasian Emergency Nursing Journal : AENJ*, 17(3), 91–97. <https://doi.org/10.1016/j.aenj.2014.03.003>
- Geller, G., Levine, D. M., Mamon, J. A., Moore, R. D., Bone, L. R., & Stokes, E. J. (1989). Knowledge, attitudes, and reported practices of medical students and house staff regarding the diagnosis and treatment of alcoholism. *JAMA*, 261(21), 3115–3120. <https://ccl.on.worldcat.org/oclc/116453543>
- Gerace, L. M., Hughes, T. L., & Spunt, J. (1995). Improving nurses' responses toward substance-misusing patients: a clinical evaluation project. *Archives of Psychiatric Nursing*, 9(5), 286–294. <https://ccl.on.worldcat.org/oclc/120299002>
- Gilbert, P. (1989). *Human nature and suffering*. Lawrence Erlbaum Associates.
- Gilbert, Paul. (1984). *Depression--from psychology to brain state*. Erlbaum Associates. <https://ccl.on.worldcat.org/oclc/11497526>
- Gilbert, Paul. (2012). Compassion-Focused Therapy. In *Cognitive Behaviour Therapies* (pp. 140–165). SAGE Publications. <https://doi.org/10.4135/9781446288368.n7>
- Gilbert, Paul. (2014). The origins and nature of compassion focused therapy. *The British Journal of Clinical Psychology*, 53(1), 6–41. <https://doi.org/10.1111/bjc.12043>
- Global Commission on Drug Policy. (2017). *The World Drug Perception Problem: Countering Prejudices about People Who Use Drugs*. [http://www.globalcommissionondrugs.org/wp-content/uploads/2018/01/GCDP-Report-2017\\_Perceptions-ENGLISH.pdf](http://www.globalcommissionondrugs.org/wp-content/uploads/2018/01/GCDP-Report-2017_Perceptions-ENGLISH.pdf)
- Goldberg, J. L. (2008). Humanism or professionalism? The white coat ceremony and medical

- education. *Academic Medicine*, 83(8), 715–722.  
<https://doi.org/10.1097/ACM.0b013e31817eba30>
- Gorsuch, R. L. (1983). *Factor Analysis* (2nd ed.). Lawrence Erlbaum Associates.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S., & Ditto, P. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology*, 47, 55–130.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and Conservatives Rely on Different Sets of Moral Foundations. *Journal of Personality and Social Psychology*, 96(5), 1029–1046.  
<https://doi.org/10.1037/a0015141>
- Graham, J. W. (2012). *Missing Data: Analysis and Design*. Springer.
- Graham, Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality & Social Psychology*, 101(2), 366.  
<https://doi.org/10.1097/00005053-199107000-00016>
- Greene, J. (2014). *Moral tribes: emotion, reason, and the gap between us and them*.
- Greenwald, G. (2009). *Drug decriminalization in Portugal: Lessons for creating fair and successful drug policies*. Cato Institute.
- Grubbs, J. B., Exline, J. J., Pargament, K. I., Hook, J. N., & Carlisle, R. D. (2015). Transgression as addiction: religiosity and moral disapproval as predictors of perceived addiction to pornography. *Archives of Sexual Behavior: The Official Publication of the International Academy of Sex Research*, 44(1), 125–136. <https://doi.org/10.1007/s10508-013-0257-z>  
<https://ccl.on.worldcat.org/oclc/5713344766>
- Haidt, J., & Kesebir, S. (2010). Morality. In S. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed.). Wiley.

- Heather, N. (2017). Q: Is Addiction a Brain Disease or a Moral Failing? A: Neither. *Neuroethics*, 10(1), 115–124. <https://doi.org/10.1007/s12152-016-9289-0>
- Hill. (2010). *Philosophy, Ethics, and Humanities in Medicine* | Full text | How clinicians make (or avoid) moral judgments of patients: implications of the evidence for relationships and research. 1–14. <http://www.peh-med.com/content/5/1/11>
- Hill, C., Helms, J., Spiegel, S., & Tichenor, V. (1988). Development of a system for categorizing client reactions to therapist interventions. *Journal of Counseling Psychology*, 35(1), 27–36. <https://doi.org/10.1037/0022-0167.35.1.27>
- Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science*, 345(6202).
- Hollingsworth, E., & Ford-Gilboe, M. (2006). Registered nurses' self-efficacy for assessing and responding to woman abuse in emergency department settings. *The Canadian Journal of Nursing Research = Revue Canadienne de Recherche En Sciences Infirmieres*, 38(4), 54–77. <https://ccl.on.worldcat.org/oclc/111037599>
- Horn, J. L., & McArdle, J. J. (1992). A practical and theoretical guide to measurement invariance in aging research. *Experimental Aging Research*, 18(3–4), 117–144.
- Howard, & Chung. (2000). Nurses' attitudes toward substance misusers. II. Experiments and studies comparing nurses to other groups. *Substance Use & Misuse*, 35(4), 503–532.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis. Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1–55.
- Hu, X. (2017). *Global orientations and moral foundations: A cross-cultural examination among American, Chinese, and International Students* [Rutgers University Libraries].

<https://rucore.libraries.rutgers.edu/rutgers-lib/55507/PDF/1/play/>

Hu, Y. (2020). Why Do They Help People with AIDS/HIV Online? Altruistic Motivation and Moral Identity. *Journal of Social Service Research*, 46(3), 345–360.

<https://doi.org/10.1080/01488376.2019.1575321>

Human Rights Watch. (2008). An unbreakable cycle: drug dependency treatment, mandatory confinement, and HIV/AIDS in China's Guangxi Province. In *Human Rights Watch*.

<https://www.hrw.org/report/2008/12/08/unbreakable-cycle/drug-dependency-treatment-mandatory-confinement-and-hiv/aids>

Human Rights Watch. (2010). *Where Darkness Knows No Limits*.

[https://www.hrw.org/sites/default/files/reports/china0110webwcover\\_0.pdf](https://www.hrw.org/sites/default/files/reports/china0110webwcover_0.pdf)

Human Rights Watch. (2020). *Torture in the Name of Treatment*.

<https://www.hrw.org/report/2012/07/24/torture-name-treatment/human-rights-abuses-vietnam-china-cambodia-and-lao-pdr>

Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of*

*Macromarketing*, 6(1), 5–16. <https://doi.org/https://doi.org/10.1177/027614678600600103>

LK - <https://ccl.on.worldcat.org/oclc/4651727429>

Hwang, K. K. (2006). Moral face and social face: Contingent self-esteem in Confucian society.

*International Journal of Psychology*, 41(4), 276–281.

<https://doi.org/10.1080/00207590544000040>

Islamic Medical Association of North America. (2005). Islamic medical ethics: the IMANA perspective. *Journal of Islamic Medical Association of North America*, 37(1).

<https://doi.org/https://doi.org/10.5915/37-1-5528>

Iurino, K., & Saucier, G. (2020). Testing Measurement Invariance of the Moral Foundations

Questionnaire Across 27 Countries. *Assessment*, 27(2), 365–372.

<https://doi.org/10.1177/1073191118817916>

Jakobsen, J. C., Gluud, C., Wetterslev, J., & Winkel, P. (2017). When and how should multiple imputation be used for handling missing data in randomised clinical trials - A practical guide with flowcharts. *BMC Medical Research Methodology*, 17(1), 1–10.

<https://doi.org/10.1186/s12874-017-0442-1>

Janoff-Bulman, R., Sheikh, S., & Baldacci, K. G. (2008). Mapping moral motives: Approach, avoidance, and political orientation. *Journal of Experimental Social Psychology*, 44(4), 1091–1099. <https://doi.org/10.1016/j.jesp.2007.11.003>

Jia, F., & Krettenauer, T. (2017). Recognizing moral identity as a cultural construct. *Frontiers in Psychology*, 8(MAR), 1–5. <https://doi.org/10.3389/fpsyg.2017.00412>

Jordan, J., Leliveld, M. C., & Tenbrunsel, A. E. (2015). The Moral Self-Image Scale: Measuring and Understanding the Malleability of the Moral Self. *Frontiers in Psychology*, 6.

<https://ccl.on.worldcat.org/oclc/6893109748>

Kihlstrom, J., & Klein, S. (1994). The self as a knowledge structure. In R. S. Wyer Jr. & T. K. Srull (Eds.), *Handbook of social cognition: applications* (2nd ed., pp. 153–208). Lawrence Erlbaum Associates.

Kipnis, A. (2015). Modernity and the Chinese moral crisis. *The China Journal*, 75(75), 121–127.

Kleinman, A. (2010). Remaking the moral person in China: implications for health. *Lancet*, 375(9720), 1074–1075. [https://doi.org/10.1016/S0140-6736\(10\)60466-7](https://doi.org/10.1016/S0140-6736(10)60466-7)

Knox, S., & Hill, C. E. (2003). Therapist self-disclosure: research-based suggestions for practitioners. *Journal of Clinical Psychology*, 59(5), 529–539.

<https://ccl.on.worldcat.org/oclc/110202795>

- Koenig, H. G., & Büssing, A. (2010). The Duke University Religion Index (DUREL): A five-item measure for use in epidemiological studies. *Religions, 1*(1), 78–85.  
<https://doi.org/10.3390/rel1010078>
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of Religion and Health* (2nd ed. NV). Oxford University Press, USA.  
<http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=931219>
- Kosik, R. O. M. D., Fan, A. P. P., Ren, Y. P., Jiang, B. L. L. M., Hsu, Y. B. A., Li, W. M. D., Zhao, X. M. D., & Chen, Q. M. D. (2018). Medical humanities education in China: an exploratory cross-sectional study. *The Lancet, 392*(Supplement 1), S47.  
[https://doi.org/10.1016/S0140-6736\(18\)32676-X](https://doi.org/10.1016/S0140-6736(18)32676-X) LK -  
<https://ccl.on.worldcat.org/oclc/7900092566>
- Krettenauer, T., & Jia, F. (2013). Investigating the actor effect in moral emotion expectancies across cultures: A comparison of Chinese and Canadian adolescents. *British Journal of Developmental Psychology, 31*(3), 349–362. <https://doi.org/10.1111/bjdp.12012>
- Lamont, M., & Thévenot, L. (2010). Introduction: toward a renewed comparative cultural sociology. *Rethinking Comparative Cultural Sociology*, 1–22.  
<https://doi.org/10.1017/cbo9780511628108.001>
- Lapsley, D., & Lasky, B. (2001). Prototypic moral character. *Identity: An International Journal of Theory and Prototypic Moral Character, 1*(4), 345–363.  
<https://doi.org/10.1207/S1532706XID0104>
- Larkin. (1999). Evaluating Professionalism in Emergency Medicine: Clinical Ethical Competence. *Academic Emergency Medicine, 6*(4), 302–311.
- Lazarus, L. M. (2016). China's quest for a moral compass. *The Diplomat*.

<https://thediplomat.com/2016/09/chinas-quest-for-a-moral-compass/>

- Lee, K., Cameron, C. A., Xu, F., Fu, G., & Board, J. (1997). *Chinese and Canadian Children's Evaluations of Lying and Truth Telling: Similarities and Differences in the Context of Pro- and Antisocial Behaviors* (p. 924=934).
- Lee, L. T., & Lai, W. W. (1978). The Chinese conceptions of law: Confucian, Legalist, and Buddhist. *Hastings Law Journal*, 29(6).
- Lembke, A. (2016). *Drug Dealer, M.d. How Doctors Were Duped, Patients Got Hooked, and Why It's So Hard to Stop*. Johns Hopkins University Press.
- <https://ccl.on.worldcat.org/oclc/969828418>
- Lewis, D. C. (1993). A disease model of addiction. In N. Miller (Ed.), *Principles of addiction medicine* (pp. 1–7). American Society on Addiction Medicine.
- Lippa, R., & Arad, S. (1999). Gender, personality, and prejudice: the display of authoritarianism and social dominance in interviews with college men and women. *Journal of Research in Personality*, 33(4), 463–493. <https://doi.org/10.1006/jrpe.1999.2266>
- Lowe, R., & Ziemke, T. (2011). The feeling of action tendencies: on the emotional regulation of goal-directed behavior. *Frontiers in Psychology*, 2(364), 1–24.
- <https://doi.org/10.3389/fpsyg.2011.00346>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130–149.
- MacCallum, Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1), 84–99. <https://doi.org/10.1037/1082-989X.4.1.84>
- Malamut, G. (2014). Laïcité in medical schools: A French paradox? *The Lancet*, 383(9919), 783.

[https://doi.org/10.1016/S0140-6736\(14\)60402-5](https://doi.org/10.1016/S0140-6736(14)60402-5)

- Marcel, A. (1983). Conscious and Unconscious Perception: An Approach to the Relations between Phenomenal Experience and Perceptual Processes. *Cognitive Psychology*, 15(2), 238–300. [https://doi.org/https://doi.org/10.1016/0010-0285\(83\)90010-5](https://doi.org/https://doi.org/10.1016/0010-0285(83)90010-5)
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. American Psychological Association. *Psychological Review*, 98(2), 224. <https://doi.org/http://dx.doi.org.libezproxy.open.ac.uk/10.1037/0033-295X.98.2.224>
- Matano, & Wanat, S. F. (2000). Addiction is a treatable disease, not a moral failing. *The Western Journal of Medicine*, 172(1), 63. <https://doi.org/10.1136/ewjm.172.1.63>
- McCarthy. (2016). US must address addiction as an illness, not as a moral failing, Surgeon General says. *BMJ (Clinical Research Ed.)*, 355, i6265. <https://doi.org/10.1136/bmj.i6265>
- McLellan, A. T., Hery, D. S., & Druley, K. A. (1978). Staff Drinking Patterns and Approach to Patient Drinking Problems within a Psychiatric Hospital. *The American Journal of Drug and Alcohol Abuse*, 5(4), 507–516. <https://doi.org/10.3109/00952997809007025>
- McPartland, B. (2013). *Pupils to learn France's secular moral values*. <https://www.thelocal.fr/20130422/minister-to-present-plan-for-moral-secular-classes>
- Miller, J. G., Wice, M., & Goyal, N. (2007). Cultural psychology of moral development. In *Handbook of Cultural Psychology* (pp. 477–499). Guilford Press.
- Mitchell, Flin, Yule, Mitchell, Coutts, & Youngson. (2011). Thinking ahead of the surgeon. An interview study to identify scrub nurses' non-technical skills. *International Journal of Nursing Studies*, 48(7), 818–828.
- Montville, J. V. (2016). The moral ties within the family of Abraham: A primer on shared social values in Judaism, Christianity, and Islam. *Journal of Ecumenical Studies*, 51(2), 245–256.



<https://doi.org/10.1353/ecu.2016.0024>

Morone, J. A. (1997). Enemies of the people: The moral dimension to public health. *Journal of Health Politics, Policy and Law*, 22(4), 993–1020. <https://doi.org/10.1215/03616878-22-4-993>

Muthén, L., & Muthén, B. (2010). *Mplus User's Guide* (6th ed.). Muthén & Muthén.

National Association of Social Workers. (n.d.). *Code of Ethics Statement*. National Association of Social Workers. Retrieved February 9, 2019, from

<https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English>

Nie, J. B. (2000). The plurality of Chinese and American medical moralities: Toward an interpretive cross-cultural bioethics. *Kennedy Institute of Ethics Journal*, 10(3), 239–260. <https://doi.org/10.1353/ken.2000.0020>

Norenzayan, A., & Heine, S. J. (2005). Psychological universals: What are they and how can we know? *Psychological Bulletin*, 131(5), 763–784. <https://doi.org/10.1037/0033-2909.131.5.763>

Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science*, 322(5898), 58–62. <https://doi.org/10.1126/science.1158757>

Oppenheimer, G. M. (1991). To Build a Bridge: The Use of Foreign Models by Domestic Critics of U.S. Drug Policy. *The Milbank Quarterly*, 69(3), 194–225.

Passini, S. (2017). Different ways of being authoritarian: the distinct effects of authoritarian dimensions on values and prejudice. *Political Psychology*, 38(1), 73–86. <https://doi.org/10.1111/pops.12309>

Pavlish, C., Brown-Saltzman, K., Raho, J., & Chen, B. (2019). A national survey on moral obligations in critical care. *American Journal of Critical Care: An Official Publication*,

*American Association of Critical-Care Nurses*, 28(3), 183–192.

<https://doi.org/10.4037/ajcc2019512>

Pearson. (2011). The use of simulation as a learning approach to non-technical skills awareness in final year student nurses. *Nurse Education in Practice*, 11(6), 399–405.

Peterson, R. A., & Brown, S. P. (2005). On the use of beta coefficients in meta-analysis. *Journal of Applied Psychology*, 90(1), 175–181. <https://doi.org/10.1037/0021-9010.90.1.175>

Pew Research Center. (2013). *Pew Research Center's 2013 Global Attitudes survey*.

<https://www.pewresearch.org/global/wp-content/uploads/sites/2/2014/03/morality-topline-final.pdf>

Pew Research Center. (2014). *Worldwide, many see belief in God as essential to morality*.

<https://www.pewresearch.org/global/2014/03/13/worldwide-many-see-belief-in-god-as-essential-to-morality/>

Pew Research Center. (2016). *How religious is your state?* Pew Research Center.

<https://www.pewresearch.org/fact-tank/2016/02/29/how-religious-is-your-state/?state=california>

Pew Research Center. (2018). *The Religious Typology*.

<https://www.pewforum.org/2018/08/29/the-religious-typology/>

Pfaffel, A., Schober, B., & Spiel, C. (2016). A comparison of three approaches to correct for direct and indirect range restrictions: A simulation study. *Practical Assessment, Research and Evaluation*, 21(6).

Poh-Wah. (2002). Cross-cultural perspectives on the (im)possibility of global bioethics. In T.

Poh-Wah (Ed.), *Journal of Petrology* (Vol. 369, Issue 1).

<https://doi.org/10.1017/CBO9781107415324.004>

- Poikolainen, K. (1988). Alcohol-related knowledge, beliefs and attitudes among health and clerical personnel. *Social Science and Medicine*, 27(12), 1429–1432.  
[https://doi.org/10.1016/0277-9536\(88\)90209-2](https://doi.org/10.1016/0277-9536(88)90209-2)
- Poland, J., & Graham, G. (2011). *Addiction and Responsibility*. The MIT Press.  
<http://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=nlebk&AN=373295&site=ehost-live&scope=site&custid=s8438901>
- Prinz, J. (2007). *The emotional construction of morals*. Oxford University Press.  
<http://public.eblib.com/choice/publicfullrecord.aspx?p=415866>
- Pujol, N., Jobin, G., & Beloucif, S. (2016). ‘Spiritual care is not the hospital’s business’: a qualitative study on the perspectives of patients about the integration of spirituality in healthcare settings. *Journal of Medical Ethics*, 42(11), 733–737.  
<https://doi.org/10.1136/medethics-2016-103565>
- Razzaque, M. A., & Hwee, T. P. (2002). Ethics and purchasing dilemma: A Singaporean view. *Journal of Business Ethics*, 35(4), 307–326.
- Reinarman, C., & Levine, H. (Eds.). (1997). *Crack In America: Demon Drugs and Social Justice*. University of California Press.
- Rentmeester, C. A., & George, C. (2009). Legalism, countertransference, and clinical moral perception. *American Journal of Bioethics*, 9(10), 20–28.  
<https://doi.org/10.1080/15265160902985001>
- Richmond, I., & Foster, J. (2003). Negative attitudes towards people with co-morbid mental health and substance misuse problems: An investigation of mental health professionals. *Journal of Mental Health*, 12(4), 393–403. <https://ccl.on.worldcat.org/oclc/361492399>
- Roche, Parle, M. D., Stubbs, J. M., Hall, W., & Saunders, J. B. (1995). Management and

- treatment efficacy of drug and alcohol problems: what do doctors believe? *Addiction* (Abingdon, England), 90(10), 1357–1366. <https://ccl.on.worldcat.org/oclc/121724435>
- Saraglou, V., Clobert, M., Cohen, A. B., Johnson, K. A., Ladd, K. L., Pachterbeke, M. Van, Adamovova, L., Blogowska, J., & Brandt, P.-Y. (2011). Believing, Bonding, Behaving, and Belonging: The Cognitive, Emotional, Moral, and Social Dimensions of Religiousness across Cultures. *Journal of Cross-Cultural Psychology*.
- Saucier, G., & Skrzypińska, K. (2006). Spiritual but not religious? Evidence for two independent dispositions. LK - <https://ccl.on.worldcat.org/oclc/111269616>. *Journal of Personality*, 74(5), 1257–1292.
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *Journal of Educational Research*, 99(323–338).
- Shaffer, B. A., & Hastings, B. M. (2007). Authoritarianism and religious identification: Response to threats on religious beliefs. *Mental Health, Religion & Culture*, 10(2), 151–158. <https://doi.org/10.1080/13694670500469949>
- Shariff, A. F., Piazza, J., & Kramer, S. R. (2014). Morality and the religious mind: Why theists and nontheists differ. *Trends in Cognitive Sciences*, 18(9), 439–441. <https://doi.org/10.1016/j.tics.2014.05.003>
- Shepley, N. (2011). *Addiction & Recovery: Vol. 3rd ed.* Andrews UK. <http://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=nlebk&AN=426526&site=ehost-live&scope=site&custid=s8438901>
- Shochet, R., & King, J. (2013). “Thinking on my feet”: an improvisation course to enhance students’ confidence. *Education for Primary Care*, 24, 119–125.

<https://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=20&sid=7e84ed72-523f-43a9-85e4-e7b97fa59154@sessionmgr111&hid=126>

Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The “big three” of morality (autonomy, community, and divinity), and the “big three” explanations of suffering. In A. Brandt & P. Rozin (Eds.), *Morality and Health* (pp. 119–169). Routledge.

Snyder, M., Omoto, A. M., & Crain, A. L. (1999). Punished for their Good Deeds. *American Behavioral Scientist*, 42(7), 1175–1192. <https://doi.org/10.1177/0002764299042007009>

Sockloskie, R. J. (1990). Factor structures and validity of the Child-Related Values Survey. *Genetic, Social, and General Psychology Monographs*, 116(3), 357–377.

<https://cc0.on.worldcat.org/oclc/117545274>

State Council of the CPC Central Committee. (2019). *Outline for the Implementation of the Construction of Citizen’s Morality in the New Era*. State Council of the CPC Central Committee. [http://www.gov.cn/zhengce/2019-10/27/content\\_5445556.htm](http://www.gov.cn/zhengce/2019-10/27/content_5445556.htm)

Stern, D. T., Cohen, J. J., Bruder, A., Packer, B., & Sole, A. (2008). Teaching humanism. *Perspectives in Biology and Medicine*, 51(4), 495–507.

Stets, J., & Carter, M. (2011). The moral self: applying identity theory. *Social Psychology Quarterly*, 74(2), 192–215.

Su, H., Chen, T., Jiang, H., Du, J., Xiao, K., Xu, D., Song, W., & Zhao, M. (2020). Intermittent theta burst transcranial magnetic stimulation for methamphetamine addiction: A randomized clinical trial. *European Neuropsychopharmacology*, 31.

<https://doi.org/10.1016/j.euroneuro.2019.12.114>

Szalavitz, M. (2016). *Unbroken brain: A revolutionary new way of understanding addiction*. St. Martin’s Press.

- Tariq, S., Ansari, N. G., & Alvi, T. H. (2019). The impact of intrinsic and extrinsic religiosity on ethical decision-making in management in a non-Western and highly religious country. *Asian Journal of Business Ethics*, 8(2), 195–224. <https://doi.org/10.1007/s13520-019-00094-3>
- Tassy, S., Polski, L., Banet, J., & Gorincour, G. (2004). High mortality in displaced populations of Northern Uganda. *The Lancet*, 363(9418), 1402. [https://doi.org/https://doi.org/10.1016/S0140-6736\(04\)16070-4](https://doi.org/https://doi.org/10.1016/S0140-6736(04)16070-4)
- Teixeira. (2005). Competence in Medicine. *Electronic Journal of Biomedicine*, 1, 22–31.
- Thissen, D., & Steinberg, L. (2009). No Title. In *The Sage handbook of quantitative methods in psychology* (pp. 148–177). Sage.
- Thombs, D. L. (2009). Moral Model. In *Encyclopedia of substance abuse prevention, treatment, & recovery*. Sage.
- Tse, A. C. B., & Au, A. K. M. (1997). Are New Zealand business students more unethical than non-business students? *Journal of Business Ethics*, 16(4), 445–450.
- UNODC. (2015). World Drug report 2015 Executive Summary. In *World Drug Report 2015*. <https://doi.org/10.1002/yd.282>
- UNODC. (2020). *World Drug Report 2020: Drug Use and Health Consequences*.
- Vandenberg, R. J., & Lance, C. E. (2000). The relationship of authoritarianism and related constructs to attitudes toward homosexuality. *Journal of Applied Social Psychology*, 30(1), 144–170. <https://doi.org/10.1177/109442810031002>
- Vitell, S. J., Bing, M. N., Davison, H. K., Ammeter, A. P., Garner, B. L., & Novicevic, M. M. (2009). Religiosity and moral identity: The mediating role of self-control. *Journal of Business Ethics*, 88(4), 601–613. <https://doi.org/10.1007/s10551-008-9980-0>

- Wagener, D. (2020). *What is the Success Rate of AA?* American Addiction Centers.  
<https://americanaddictioncenters.org/rehab-guide/12-step/whats-the-success-rate-of-aa>
- Walker, L. J., & Pitts, R. C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology, 34*(3), 403–419. <https://doi.org/10.1037/0012-1649.34.3.403>
- Wang, X., Chen, Z., Poon, K. T., Teng, F., & Jin, S. (2017). Self-compassion decreases acceptance of own immoral behaviors. *Personality and Individual Differences, 106*, 329–333. <https://doi.org/10.1016/j.paid.2016.10.030>
- West, R., Hao, W., Lam, T. H., Lau, J., Li, J., Li, J., Lu, L., Marsden, J., O'Reilly, J., Shek, D. T. L., Wu, A. M. S., Wu, Z., Xiao, D., Zhang, R., Zhao, L., & Zhao, M. (2019). Addiction in China: towards a research agenda for the next 5 years. *Addiction, 114*(11), 1911–1914. <https://doi.org/10.1111/add.14650>
- Whitley, B. E., & Lee, S. E. (2000). The relationship of authoritarianism and related constructs to attitudes toward homosexuality. *Journal of Applied Social Psychology, 30*(1), 144–170. <https://doi.org/https://doi.org/10.1111/j.1559-1816.2000.tb02309.x>
- Wimalasiri, J. S., Pavri, F., & Jalil, A. A. K. (1996). An empirical study of moral reasoning among managers in Singapore. *Journal of Business Ethics, 15*(12), 1331–1341.
- Wolf, A., Garlid, B., Catherine, F., & Hyrkas, K. (2018). Physicians' perceptions of hope and how hope informs interactions with patients: a qualitative, exploratory study. *American Journal of Hospice and Palliative Medicine, 35*(7), 993–999. <https://doi.org/10.1177/1049909117751877>
- Wolf, Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: an evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement, 76*(6), 913–934.

- World Health Organisation. (2009). *Assessment of compulsory treatment of people who use drugs in Cambodia, China, Malaysia and Vietnam: an application of selected human rights principles*.
- World Health Organization. (2020). *The Global Health Observatory*.  
<https://www.who.int/data/gho>
- Wynia, M. (2018). The compassionate utilitarian: Reconciling the competing moral values behind efforts to regulate cannabis use. *International Journal of Mental Health and Addiction*, 16(4), 813–823.
- Xu, J. (2019). Learning “Merit” in a Chinese Preschool: Bringing the Anthropological Perspective to Understanding Moral Development. *American Anthropologist*, 121(3), 655–666. <https://doi.org/10.1111/aman.13269>
- Yang, L. H., Kleinman, A., Link, B. G., Phelan, J. C., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science and Medicine*, 64(7), 1524–1535. <https://doi.org/10.1016/j.socscimed.2006.11.013>
- Yao, X. (2000). *An introduction to Confucianism*. Cambridge University Press.
- Yelderman, L. A., West, M. P., & Miller, M. K. (2018). Religious beliefs, religious contexts, and perceived interactions with ex-offenders. *Review of Religious Research*, 60(3), 305–329.  
<https://doi.org/10.1007/s13644-018-0331-z>
- Yinan, Z., & Yan, Z. (2011). New Law Ensures Drug Addicts’ Rights to Proper Care. *China Daily Europe*. [http://europe.chinadaily.com.cn/china/2011-10/18/content\\_13920587.htm](http://europe.chinadaily.com.cn/china/2011-10/18/content_13920587.htm)
- Zhang, C., Li, J., Li, D., & Sun, B. (2019). Deep brain stimulation removal after successful treatment for heroin addiction. *Australian and New Zealand Journal of Psychiatry*, 00, 0–1.  
<https://doi.org/10.1177/0004867419890671>





## Appendices

### Appendix A

#### Study 1 Survey

(English)

<u>Age</u>	
<u>Question</u> What age category are you in?	<u>Response options</u> <ul style="list-style-type: none"> <li>• 18-24 (1)</li> <li>• 25-44 (2)</li> <li>• 45+ (3)</li> </ul>
<u>Sex</u>	
<u>Question</u> What is your gender?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Male = (1)</li> <li>• Female = (2)</li> <li>• Other = (3)</li> </ul>
<u>Occupation</u>	
<u>Question</u> Are you a health professional who currently or previously worked in California?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Yes (1)</li> <li>• No (2)</li> </ul>
What is your primary occupation?	<ul style="list-style-type: none"> <li>• Physician (1)</li> <li>• Nurse (2)</li> <li>• Other (3)</li> </ul>
<u>Moral evaluation of Patient Behavior (MEPB) specific to substance use disorders</u> <i>Instructions: Please answer the following questions only according to your personal views (as opposed to the rules you might be taught in society or at work). In answering these questions, please consider 'substances' and 'drugs' that lead people to seek psychiatric, psychological, or other medical treatment. Please remember that all responses to this survey are confidential.</i>	
<u>Questions</u> <ol style="list-style-type: none"> <li>1. Substance use is associated with a weak will.</li> <li>2. People who use alcohol or other drugs are immoral.</li> <li>3. The decision to use alcohol or other drugs is a moral decision</li> <li>4. People who use alcohol or other drugs should think about the morality of their actions.</li> <li>5. Moral people avoid the use of alcohol or other drugs.</li> <li>6. Substance use is a matter of right and wrong.</li> </ol>	<u>Response options</u> <ul style="list-style-type: none"> <li>• Disagree (1)</li> <li>• Somewhat disagree (2)</li> <li>• Somewhat agree (3)</li> <li>• Agree (4)</li> </ul>

(Français)

<u>Âge</u>	
<u>Question</u> Dans quelle catégorie d'âge êtes-vous?	<u>Options de réponse</u> <ul style="list-style-type: none"><li>• 18-24 (1)</li><li>• 25-44 (2)</li><li>• 45+ (3)</li></ul>
<u>Sexe</u>	
<u>Question</u> Quel est ton sexe?	<u>Options de réponse</u> <ul style="list-style-type: none"><li>• Homme (1)</li><li>• Femme (2)</li><li>• Autre (3)</li></ul>
<u>Titre de votre poste</u>	
<u>Question</u> Quelle est votre occupation principale?	<u>Options de réponse</u> <ul style="list-style-type: none"><li>• Médecin (1)</li><li>• Infirmière (2)</li><li>• Autre (3)</li></ul>
<u>Évaluation morale du comportement du patient spécifique à la toxicomanie</u>	
Veuillez répondre aux questions suivantes uniquement en fonction de vos opinions personnelles (par opposition aux règles qui pourraient vous être enseignées dans la société ou au travail). Pour répondre à ces questions, veuillez considérer les «substances» et les «drogues» qui poussent les gens à rechercher un traitement psychiatrique, psychologique ou autre. N'oubliez pas que toutes les réponses à ce sondage sont confidentielles.	
<u>Des Questions</u> <ol style="list-style-type: none"><li>1. La consommation de substances est associée à une volonté faible.</li><li>2. Les personnes qui consomment de l'alcool ou d'autres drogues sont immorales.</li><li>3. La décision de consommer de l'alcool ou d'autres drogues est une décision morale.</li><li>4. Les personnes qui consomment de l'alcool ou d'autres drogues devraient penser à la moralité de leurs actes.</li><li>5. Les personnes morales évitent la consommation d'alcool ou d'autres drogues.</li><li>6. La consommation de substances psychoactives est une question de bien et de mal.</li></ol>	<u>Options de réponse</u> <ul style="list-style-type: none"><li>• Pas d'accord (1)</li><li>• Plutôt en désaccord (2)</li><li>• Plutôt d'accord (3)</li><li>• D'accord (4)</li></ul>

(中文)

<u>年龄</u>	
<u>题</u> 请圈年龄?	<u>回应选项</u> <ul style="list-style-type: none"><li>• 18-24 (1)</li><li>• 25-44 (2)</li><li>• 45+ (3)</li></ul>
<u>性别</u>	
<u>题</u> 请圈性别?	<u>回应选项</u> <ul style="list-style-type: none"><li>• 男 (1)</li><li>• 女 (2)</li><li>• 其他 (3)</li></ul>
<u>占用</u>	
<u>题</u> 请圈职称?	<u>回应选项</u> <ul style="list-style-type: none"><li>• 医生 (1)</li><li>• 护士 (2)</li><li>• 其他医疗卫生从业者 (3)</li></ul>
<u>针对(非安全物质使用)的患者行为的道德评估</u>	
请仅根据您的个人意见回答以下问题（而不是基于您在社会或工作中所接受的规定或教导). “非安全物质”或“药物”是指频发地导致人们进行精神、心理或其他治疗的物质。此项研究中针对的“物质”是指像酒精，香烟，大麻，海洛因和可卡因这类物质，而并非如咖啡因，糖等可能改变或伤害身心但不太会导致人们寻求医疗治疗的物质。对此调研的所有答复都是保密的	
<u>问题</u> <ol style="list-style-type: none"><li>1. 物质滥用与意志薄弱有关.</li><li>2. 使用酒精或其他药物的人是不道德.</li><li>3. 使用酒精或其他药物属于道德决定.</li><li>4. 使用酒精或其他药物的人应该考虑他们行为的道德性.</li><li>5. 有道德的人会避免使用酒精或其他药物.</li><li>6. 物质滥用是一个是非问题.</li></ol>	<u>回应选项</u> <ul style="list-style-type: none"><li>• 不同意 (1)</li><li>• 不同意 (2)</li><li>• 比较同意 (3)</li><li>• 同意 (4)</li></ul>

## Appendix B

### Study 1: Syntax for Measurement Invariance (Model 1)

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEVARIABLES ARE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 Country;

Grouping IS country (1 = Cali 2 = France 3 = China);

Missing are .;

ANALYSIS:

estimator=MLR;

MODEL:

MEPBlf by MEPBi2-MEPBi7;

[MEPBlf@0];

MODEL France:

MEPBlf by MEPBi3-MEPBi7;

[MEPBi2-MEPBi7];

MEPBI5 WITH MEPBI4;

MODEL China:

MEPBlf by MEPBi3-MEPBi7;

[MEPBi2-MEPBi7];

output:

SAMPSTAT MODINDICES STAND RESIDUAL;

## Appendix C

### Study 1: Syntax for Measurement Invariance (Model 2)

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEVARIABLES ARE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 Country;

Grouping IS country (1 = Cali 2 = France 3 = China);

Missing are .;

ANALYSIS:

estimator=MLR;

MODEL :

MEPBlf by MEPBi2(f);

MEPBlf by MEPBi3(a);

MEPBlf by MEPBi4(b);

MEPBlf by MEPBi5(c);

MEPBlf by MEPBi6(d);

MEPBlf by MEPBi7(e);

MEPBlf;

[MEPBi2];

[MEPBi3];

[MEPBi4];

[MEPBi5];

[MEPBi6];

[MEPBi7];

[MEPBlf@0];

MODEL France:

MEPBlf by MEPBi2(f);  
MEPBlf by MEPBi3(a);  
MEPBlf by MEPBi4(b);  
MEPBlf by MEPBi5(c);  
MEPBlf by MEPBi6(d);  
MEPBlf by MEPBi7(e);  
MEPBlf;  
[MEPBi2];  
[MEPBi3];  
[MEPBi4];  
[MEPBi5];  
[MEPBi6];  
[MEPBi7];  
MEPBI5 WITH MEPBI4 ;

MODEL China:

MEPBlf by MEPBi2(f);  
MEPBlf by MEPBi3(a);  
MEPBlf by MEPBi4(b);  
MEPBlf by MEPBi5(c);  
MEPBlf by MEPBi6(d);  
MEPBlf by MEPBi7(e);  
MEPBlf;  
[MEPBi2];  
[MEPBi3];  
[MEPBi4];  
[MEPBi5];  
[MEPBi6];  
[MEPBi7];

output:

SAMPSTAT MODINDICES STAND RESIDUAL;

## Appendix D

### Study 1: Syntax for Single-Group CFAs

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEOBSERVATIONS = country EQ 1; ! or 2 or 3, depending on country

USEVARIABLES ARE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 ;

Missing are .;

ANALYSIS:

estimator=MLR;

MODEL:

MEPBi<sub>f</sub> by MEPBi2-7;

output:

SAMPSTAT MODINDICES STAND RESIDUAL;



## Appendix E

### Study 2: Syntax for SEM of MEPB on RELIG and AUTH

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religio1 Religio2 Religio3 Religio4 Religio5

Author1 Author2 Author3 Author4 Author5 Author6;

USEOBSERVATIONS = country EQ 1;

USEVARIABLES ARE

job sex age

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 !MorLeg1 MorLeg8;

Religio2 Religio3 Religio4 Religio5 !Religio1

Author1 Author2 Author3 Author4 Author5 Author6;

Missing are .;

ANALYSIS:

estimator=MLR;

MODEL:

MEPBlf BY MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7;

ReligioLF BY Religio2-Religio5;

AuthorLF by Author1-Author6;

mepblf on AuthorLF ;!Age sex job;

mepblf on ReligioLF ;!Age sex job;

age with sex;

sex with job;

age with job;

authorlf with religioLf;

output: Tech1 tech4 sampstat ModIndices stdyx;

Appendix F

Study 3: Survey Measures

<u>Age</u>	
<u>Question</u> What age category are you in?	<u>Response options</u> <ul style="list-style-type: none"> <li>• 18-24 (1)</li> <li>• 25-44 (2)</li> <li>• 45+ (3)</li> </ul>
<u>Gender</u>	
<u>Question</u> What is your gender?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Male = (1)</li> <li>• Female = (2)</li> <li>• Other = (3)</li> </ul>
<u>Occupation</u>	
<u>Question</u> Are you a health professional who currently or previously worked in California?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Yes (1)</li> <li>• No (2)</li> </ul>
What is your primary occupation?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Physician (1)</li> <li>• Nurse (2)</li> <li>• Other (3)</li> </ul>
<u>Moral Evaluations of Patient Behavior (MEPB) specific to substance use disorders</u>	
<i>Instructions: Please answer the following questions only according to your personal views (as opposed the rules you might be taught in society or at work). In answering these questions, please consider “substances” and “drugs” that lead people to seek psychiatric, psychological, or other medical treatment. Please remember that all responses on this survey are confidential</i>	
<u>Questions</u> <ol style="list-style-type: none"> <li>1. Substance use is associated with a weak will.</li> <li>2. People who use alcohol or other drugs are immoral.</li> <li>3. The decision to use alcohol or other drugs is a moral decision.</li> <li>4. People who use alcohol or other drugs should think about the morality of their actions.</li> <li>5. Moral people avoid the use of alcohol or other drugs.</li> <li>6. Substance use is a matter of right and wrong.</li> </ol>	<u>Response options</u> <ul style="list-style-type: none"> <li>• Disagree (1)</li> <li>• Somewhat disagree (2)</li> <li>• Somewhat Agree (3)</li> <li>• Agree (4)</li> </ul>
<u>Moral Self-Image Scale (MSI)</u>	
<u>Questions</u> <ol style="list-style-type: none"> <li>1. Compared to the <u>caring</u> person I want to be, I am:</li> <li>2. Compared to the <u>compassionate</u> person I want to be, I am:</li> <li>3. Compared to the <u>fair</u> person I want to be, I am:</li> <li>4. Compared to the <u>friendly</u> person I want to be, I am:</li> <li>5. Compared to the <u>generous</u> person I want to be, I am:</li> <li>6. Compared to the <u>hard-working</u> person I want to be, I am:</li> </ol>	<u>Response options</u> <ol style="list-style-type: none"> <li>1    Much less [underlined</li> <li>2    word] than I want to</li> <li>3    be</li> <li>4</li> <li>5</li> <li>6</li> </ol>

7. Compared to the <u>helpful</u> person I want to be, I am:	7	Exactly as [underlined
8. Compared to the <u>honest</u> person I want to be, I am:	8	word] as the person I
9. Compared to the <u>kind</u> person I want to be, I am:	9	want to be
	10	
		Much more
		[underlined word] than
		the person I want to be

Compassion towards patients with substance use disorders (COMP)

*Please indicate the degree to which you agree or disagree with the following statements. Please limit considerations of “substance use disorders” to disorders that result in a person seeking or requiring health care treatment.*

Questions

1. When I see people with substance use disorders, I feel a powerful urge to take care of them.
2. Taking care of people with substance use disorders gives me a warm feeling inside.
3. I often notice people with substance use disorders who need help.

Response options

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Self-efficacy in assessing and responding to patients with substance use disorders (SELF-EFF)

*Prompt: How confident are you in your ability to...? Please limit considerations of “substance use disorders” to disorders that result in a person seeking or requiring health care treatment*

Questions

1. ... help people with substance use disorders?
2. ... listen to patients’ stories of their substance use disorders?
3. ... ask patients with substance use disorders about their needs, values and treatment preferences?

Response options

- Not at all confident (0)
- Somewhat confident (1)
- Confident (2)
- Very confident (3)

Optimism toward the treatment of patients with substance use disorders (OPTIM)

*Please indicate the degree to which you agree or disagree with the following statements. Please limit considerations of “substance use disorders” to disorders that result in a person seeking or requiring health care treatment.*

Questions

1. Drug addiction is treatable.
2. Alcoholism is treatable.
3. An alcohol- or drug-dependent person who has relapsed several times probably cannot be treated.

Response options

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

## Appendix G

### Study 3: Syntax for Structural Equation Model of COMP, SELF-EFF, and OPTIM on MEPB and MES

Mplus VERSION 7.4  
MUTHEN & MUTHEN  
08/07/2020 5:15 PM

#### INPUT INSTRUCTIONS

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

#### VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEOBSERVATIONS = country EQ 1;

#### USEVARIABLES ARE

JOB SEX AGE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 COMPi4

SEi4 SEi5 SEi6

OPTi3 opti4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9 ;

Missing are .;

ANALYSIS:

estimator=MLR;

#### MODEL:

MEPBlf by MEPBi2-MEPBi7;

MESlf by MESi1-MESi9;

COMPIf by COMPi2 COMPi3 COMPi4;

SElf by SEi4 SEi5 SEi6;

OPTlf by OPTi5 opti4 OPTi3 ;

COMPlf on MESlf JOB SEX AGE ;  
COMPlf on MEPBlf@0;  
SElf on MEPBlf MESlf JOB SEX AGE ;  
OPTlf on MEPBlf JOB SEX AGE ;  
OPTlf on MESlf@0;

MEPBlf with MESlf;  
COMPlf with SElf;  
COMPlf with OPTlf;  
SElf with OPTlf;  
MEPBlf with age;  
mepblf with sex;  
mepblf with job;  
age with sex;  
age with job;  
sex with job;

output: Tech1 tech4 sampstat ModIndices standardized;

## Appendix H

### Study 4: Survey Measures

(English)

<u>Age</u>	
<u>Question</u> What age category are you in?	<u>Response options</u> <ul style="list-style-type: none"> <li>• 18-24 (1)</li> <li>• 25-44 (2)</li> <li>• 45+ (3)</li> </ul>
<u>Gender</u>	
<u>Question</u> What is your gender?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Male = (1)</li> <li>• Female = (2)</li> <li>• Other = (3)</li> </ul>
<u>Occupation</u>	
<u>Question</u> Are you a health professional who currently or previously worked in California?	<u>Response options</u> <ul style="list-style-type: none"> <li>• Yes (1)</li> <li>• No (2)</li> </ul>
What is your primary occupation?	<ul style="list-style-type: none"> <li>• Physician (1)</li> <li>• Nurse (2)</li> <li>• Other (3)</li> </ul>
<u>Moral Evaluations of Patient Behavior (MEPB) specific to substance use disorders</u>	
<i>Instructions: Please answer the following questions only according to your personal views (as opposed the rules you might be taught in society or at work). In answering these questions, please consider “substances” and “drugs” that lead people to seek psychiatric, psychological, or other medical treatment. Please remember that all responses on this survey are confidential</i>	
<u>Questions</u> <ol style="list-style-type: none"> <li>1. Substance use is associated with a weak will.</li> <li>2. People who use alcohol or other drugs are immoral.</li> <li>3. The decision to use alcohol or other drugs is a moral decision.</li> <li>4. People who use alcohol or other drugs should think about the morality of their actions.</li> <li>5. Moral people avoid the use of alcohol or other drugs.</li> <li>6. Substance use is a matter of right and wrong.</li> </ol>	<u>Response options</u> <ul style="list-style-type: none"> <li>• Disagree (1)</li> <li>• Somewhat disagree (2)</li> <li>• Somewhat Agree (3)</li> <li>• Agree (4)</li> </ul>
<u>Compassion toward patients with substance use disorders (COMP)</u>	
<i>Please indicate the degree to which you agree or disagree with the following statements. Please limit considerations of “substance use disorders” to disorders that result in a person seeking or requiring health care treatment.</i>	
<u>Questions</u>	<u>Response options</u>

<ol style="list-style-type: none"> <li>1. When I see people with substance use disorders, I feel a powerful urge to take care of them.</li> <li>2. Taking care of people with substance use disorders gives me a warm feeling inside.</li> <li>3. I often notice people with substance use disorders who need help.</li> </ol>	<ul style="list-style-type: none"> <li>• Strongly disagree (1)</li> <li>• Disagree (2)</li> <li>• Somewhat disagree (3)</li> <li>• Neither agree nor disagree (4)</li> <li>• Somewhat agree (5)</li> <li>• Agree (6)</li> <li>• Strongly agree (7)</li> </ul>
<p><u>Self-efficacy in assessing and responding to patients with substance use disorders (EFFIC)</u></p>	
<p><i>Prompt: How confident are you in your ability to...? Please limit considerations of "substance use disorders" to disorders that result in a person seeking or requiring health care treatment.</i></p>	
<p><u>Questions</u></p>	<p><u>Response options</u></p>
<ol style="list-style-type: none"> <li>1. ... help people with substance use disorders?</li> <li>2. ... listen to patients' stories of their substance use disorders?</li> <li>3. ... ask patients with substance use disorders about their needs, values, and treatment preferences?</li> </ol>	<ul style="list-style-type: none"> <li>• Not at all confident (0)</li> <li>• Somewhat confident (1)</li> <li>• Confident (2)</li> <li>• Very confident (3)</li> </ul>
<p><u>Optimism toward the treatment of patients with substance use disorders (OPTIM)</u></p>	
<p><i>Please indicate the degree to which you agree or disagree with the following statements. Please limit considerations of "substance use disorders" to disorders that result in a person seeking or requiring health care treatment.</i></p>	
<p><u>Questions</u></p>	<p><u>Response options</u></p>
<ol style="list-style-type: none"> <li>1. Drug addiction is treatable.</li> <li>2. Alcoholism is treatable.</li> <li>3. An alcohol- or drug-dependent person who has relapsed several times probably cannot be treated.</li> </ol>	<ul style="list-style-type: none"> <li>• Strongly disagree (1)</li> <li>• Disagree (2)</li> <li>• Somewhat disagree (3)</li> <li>• Neither agree nor disagree (4)</li> <li>• Somewhat agree (5)</li> <li>• Agree (6)</li> <li>• Strongly agree (7)</li> </ul>

(Français)

<p align="center"><u>Évaluation morale du comportement du patient spécifique à la toxicomanie</u> <i>Veillez répondre aux questions suivantes uniquement en fonction de vos opinions personnelles (par opposition aux règles qui pourraient vous être enseignées dans la société ou au travail). Pour répondre à ces questions, veuillez considérer les «substances» et les «drogues» qui poussent les gens à rechercher un traitement psychiatrique, psychologique ou autre. N'oubliez pas que toutes les réponses à ce sondage sont confidentielles.</i></p>	
<p><u>Des Questions</u></p> <ol style="list-style-type: none"><li>1. La consommation de substances est associée à une volonté faible.</li><li>2. Les personnes qui consomment de l'alcool ou d'autres drogues sont immorales.</li><li>3. La décision de consommer de l'alcool ou d'autres drogues est une décision morale.</li><li>4. Les personnes qui consomment de l'alcool ou d'autres drogues devraient penser à la moralité de leurs actes.</li><li>5. Les personnes morales évitent la consommation d'alcool ou d'autres drogues.</li><li>6. La consommation de substances psychoactives est une question de bien et de mal.</li></ol>	<p><u>Options de réponse</u></p> <ul style="list-style-type: none"><li>• Pas d'accord (1)</li><li>• Plutôt en désaccord (2)</li><li>• Plutôt d'accord (3)</li><li>• D'accord (4)</li></ul>
<p align="center"><u>Compassion envers les patients souffrant de troubles liés à l'usage de substances</u> <i>Veillez indiquer dans quelle mesure vous êtes d'accord ou pas avec les affirmations suivantes. Veillez limiter les considérations relatives aux «troubles liés à l'utilisation de substances» aux troubles qui poussent une personne à rechercher ou à nécessiter un traitement.</i></p>	
<p><u>Des questions</u></p> <ol style="list-style-type: none"><li>1. Lorsque je vois des personnes atteintes de troubles liés à la toxicomanie, je ressens une forte envie de prendre soin d'eux.</li><li>2. Prendre soin de personnes atteintes de troubles liés à la toxicomanie me procure une sensation de réconfort. <i>(non inclus dans l'enquête)</i></li><li>3. Je remarque souvent des personnes atteintes de troubles liés à l'utilisation de substances qui ont besoin d'aide.</li></ol>	<p><u>Options de réponse</u></p> <ul style="list-style-type: none"><li>• Désaccord (1)</li><li>• Pas d'accord (2)</li><li>• Plutôt en désaccord (3)</li><li>• Ni d'accord ni en désaccord (4)</li><li>• Plutôt d'accord (5)</li><li>• D'accord (6)</li><li>• Fortement en accord (7)</li></ul>
<p align="center"><u>Auto-efficacité des professionnels de la santé à évaluer et répondre</u> <u>(aux troubles liés à l'utilisation de substance)</u> <i>Avez-vous confiance en votre capacité à...? Veillez limiter votre prise en compte des «troubles liés à l'utilisation de substance » aux maladies qui poussent les gens à demander ou à avoir besoin de soins de santé.</i></p>	
<p><u>Des questions</u></p> <ol style="list-style-type: none"><li>1. ...aider les personnes ayant des problèmes de toxicomanie?</li><li>2. ...écouter les témoignages du patient sur leur histoire avec la toxicomanie?</li></ol>	<p><u>Options de réponse</u></p> <ul style="list-style-type: none"><li>• Pas du tout confiant (0)</li><li>• Plutôt confiant (1)</li><li>• Confiant (2)</li></ul>



3. ... demander aux patients ayant des problèmes de toxicomanie quels sont leurs besoins, leurs valeurs et leurs préférences de traitement?

- Très confiant (3)

Optimisme du professionnel de la santé quant au traitement pour les patients toxicomanes

*Veillez indiquer dans quelle mesure vous êtes en accord ou en désaccord avec les affirmations ci-dessous. Veillez limiter votre prise en compte des «troubles liés à l'utilisation de substance» aux maladies qui poussent les gens à demander ou à avoir besoin de soins de santé.*

Des questions

1. L'abus de drogues est soignable (*non inclus dans l'enquête*)
2. L'alcoolisme est soignable.
3. Une personne dépendante à l'alcool ou à la drogue, qui a rechuté à plusieurs reprises, ne peut probablement pas être traitée.

Options de réponse

- Fortement en désaccord (1)
- Pas d'accord (2)
- Plutôt en désaccord (3)
- Ni d'accord ni en désaccord (4)
- Plutôt d'accord (5)
- D'accord (6)
- Fortement en accord (7)

(中文)

<p><u>针对(非安全物质使用)的患者行为的道德评估</u></p> <p>请仅根据您的个人意见回答以下问题 (而不是基于您在社会或工作中所接受的规定或教导)。“非安全物质”或“药物”是指频发地导致人们进行精神、心理或其他治疗的物质。此项研究中针对的“物质”是指像酒精, 香烟, 大麻, 海洛因和可卡因这类物质, 而并非如咖啡因, 糖等可能改变或伤害身心但不太会导致人们寻求医疗治疗的物质。对此调研的所有答复都是保密的</p>	
<p><u>问题</u></p> <ol style="list-style-type: none"><li>1. 物质滥用与意志薄弱有关.</li><li>2. 使用酒精或其他药物的人是不道德.</li><li>3. 使用酒精或其他药物属于道德决定.</li><li>4. 使用酒精或其他药物的人应该考虑他们行为的道德性.</li><li>5. 有道德的人会避免使用酒精或其他药物.</li><li>6. 物质滥用是一个是非问题.</li></ol>	<p><u>回应选项</u></p> <ul style="list-style-type: none"><li>• 不同意 (1)</li><li>• 不同意 (2)</li><li>• 比较同意 (3)</li><li>• 同意 (4)</li></ul>
<p><u>对患者同情</u></p> <p>请选择您对以下陈述的同意或反对的程度. 此项研究中的“物质”是指像酒精, 香烟, 大麻, 海洛因和可卡因这样的物质, 并非咖啡因, 糖等可能改变或伤害身心但较少导致人们寻求医疗治疗的物质</p>	
<p><u>问题</u></p> <ol style="list-style-type: none"><li>1. 看到物质滥用的患者时, 我有强烈感觉要照顾他们.</li><li>2. 照顾物质滥用的患者, 使得我内心温暖.</li><li>3. 我经常注意到需要帮助的物质滥用患者.</li></ol>	<p><u>回应选项</u></p> <ul style="list-style-type: none"><li>• 非常不同意 (1)</li><li>• 不同意 (2)</li><li>• 有些不同意 (3)</li><li>• 既不同意也不反对 (4)</li><li>• 有点同意 (5)</li><li>• 同意 (6)</li><li>• 非常同意 (7)</li></ul>
<p><u>对滥用药物患者进行评估和应对的能力</u></p> <p>您对...的能力有多自信? (“药物滥用”仅限于导致人们寻求或需要医疗保健的疾病.)</p>	
<p><u>问题</u></p> <ol style="list-style-type: none"><li>1. ...帮助有滥用药物问题的人?</li><li>2. ...听取患者关于药物滥用问题的故事?</li><li>3. ...询问药物滥用的患者有关他们的需求, 价值观和治疗偏好的问题?</li></ol>	<p><u>回应选项</u></p> <ul style="list-style-type: none"><li>• 完全没有信心 (0)</li><li>• 有点自信 (1)</li><li>• 自信 (2)</li><li>• 非常自信 (3)</li></ul>
<p><u>对药物滥用患者的医学或心理治疗持乐观态度</u></p>	

请选择您对以下陈述的同意或反对的程度。(“药物滥用”仅限于导致人们寻求或需要医疗保健的疾病。)

问题

1. 吸毒是可以治疗的
2. 酒精中毒是可以治疗的 (不包括在调查中)
3. 多次复发的酗酒或吸毒成瘾的人, 可能无法治愈

回应选项

- 非常不同意 (1)
- 不同意 (2)
- 有些不同意 (3)
- 既不同意也不反对 (4)
- 有点同意 (5)
- 同意 (6)
- 非常同意 (7)

## Appendix I

### Study 4: Measurement Invariance by Country (Model 1)

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEVARIABLES ARE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 COMPi4

SEi4 SEi5 SEi6

OPTi3 opti4 OPTi5

Job sex age

Country ;

Grouping IS country (1 = Cali 2 = France 3 = China);

Missing are .;

ANALYSIS:

estimator=MLR;

Model:

MEPBlf by MEPBi2-MEPBi7;

[MEPBlf@0];

COMPlf by COMPi2-COMPi4;

[COMPlf@0];

SElf by SEi4-SEi6;

[SElf@0];

OPTlf by OPTi3 opti4 OPTi5;

[OPTlf@0];

COMPlf with SElf;

COMPlf with OPTlf;

SElf with OPTIf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTIf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

**Model France:**

MEPBlf by MEPBi3-MEPBi7;  
[MEPBi2-MEPBi7];  
COMPlf by COMPi3-COMPi4;  
[COMPi2-COMPi4];  
SElf by SEi5-SEi6;  
[SEi4-SEi6];  
OPTIf by opti4 OPTi5;  
[OPTi3-opti5];

COMPlf with SElf;  
COMPlf with OPTIf;  
SElf with OPTIf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTIf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

**Model China:**

MEPBlf by MEPBi3-MEPBi7;  
[MEPBi2-MEPBi7];  
COMPlf by COMPi3-COMPi4;  
[COMPi2-COMPi4];  
SElf by SEi5-SEi6;  
[SEi4-SEi6];  
OPTIf by opti4 OPTi5;  
[OPTi3-opti5];

COMPlf with SElf;

COMPlf with OPTlf;  
SElf with OPTlf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTlf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

output:  
SAMPSTAT MODINDICES STAND RESIDUAL

sampstat ModIndices standardized;

## Appendix J

### Study 4: Measurement Invariance by Country (Model 2)

Mplus VERSION 7.4

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEVARIABLES ARE

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 COMPi4

SEi4 SEi5 SEi6

OPTi3 opti4 OPTi5

Job sex age

Country ;

Grouping IS country (1 = Cali 2 = France 3 = China);

Missing are .;

ANALYSIS:

estimator=MLR;

Model:

MEPBlf by MEPBi2(a);

MEPBlf by MEPBi3(b);

MEPBlf by MEPBi4(c);

MEPBlf by MEPBi5(d);

MEPBlf by MEPBi6(e);

MEPBlf by MEPBi7(f);

MEPBlf;

[MEPBi2];

[MEPBi3];

[MEPBi4];

[MEPBi5];

[MEPBi6];

[MEPBi7];  
[MEPBlf@0];

COMPlf by compi2(aa);  
complf by compi3 (bb);  
complf by compi4 (cc);  
complf;  
[compi2];  
[compi3];  
[compi4];  
[complf@0];

SElf by SEi4(aaa);  
self by sei5(bbb);  
self by sei6(ccc);  
[sei4];  
[sei5];  
[sei6];  
[SElf@0];

optlf by opti3(aaaa);  
optlf by opti4(bbbb);  
optlf by opti5(cccc);  
[OPTlf@0];

COMPlf with SElf;  
COMPlf with OPTlf;  
SElf with OPTlf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTlf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

**Model France:**

MEPBlf by MEPBi2(a);  
MEPBlf by MEPBi3(b);  
MEPBlf by MEPBi4(c);  
MEPBlf by MEPBi5(d);  
MEPBlf by MEPBi6(e);  
MEPBlf by MEPBi7(f);



MEPBlf;  
[MEPBi2];  
[MEPBi3];  
[MEPBi4];  
[MEPBi5];  
[MEPBi6];  
[MEPBi7];

COMPlf by compi2(aa);  
complf by compi3 (bb);  
complf by compi4 (cc);  
complf;  
[compi2];  
[compi3];  
[compi4];

SElf by SEi4(aaa);  
self by sei5(bbb);  
self by sei6(ccc);  
[sei4];  
[sei5];  
[sei6];

optlf by opti3(aaaa);  
optlf by opti4(bbbb);  
optlf by opti5(cccc);

COMPlf with SElf;  
COMPlf with OPTlf;  
SElf with OPTlf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTlf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

**Model China:**

MEPBlf by MEPBi2(a);  
MEPBlf by MEPBi3(b);  
MEPBlf by MEPBi4(c);  
MEPBlf by MEPBi5(d);

MEPBlf by MEPBi6(e);  
MEPBlf by MEPBi7(f);  
MEPBlf;  
[MEPBi2];  
[MEPBi3];  
[MEPBi4];  
[MEPBi5];  
[MEPBi6];  
[MEPBi7];

COMPlf by compi2(aa);  
complf by compi3 (bb);  
complf by compi4 (cc);  
complf;  
[compi2];  
[compi3];  
[compi4];

SElf by SEi4(aaa);  
self by sei5(bbb);  
self by sei6(ccc);  
[sei4];  
[sei5];  
[sei6];

optlf by opti3(aaaa);  
optlf by opti4(bbbb);  
optlf by opti5(cccc);

COMPlf with SElf;  
COMPlf with OPTlf;  
SElf with OPTlf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTlf on MEPBlf;  
MEPBlf with Age;  
MEPBlf with Job;  
MEPBlf with Sex;  
age with job;  
job with sex;  
age with sex;

output:  
SAMPSTAT MODINDICES STAND RESIDUAL  
sampstat ModIndices standardized;

## Appendix K

Study 4: SEM of COMP, SELF-EFF, and OPTIM on MEPB, by Country

### California Model

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEOBSERVATIONS = country EQ 1;

USEVARIABLES ARE

Job Age Sex

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 COMPi4

SEi4 SEi5 SEi6

OPTi3 opti4 OPTi5;

Missing are .

ANALYSIS:

estimator=MLR;

Model:

MEPBlf by MEPBi2-MEPBi7;

[mepblf@0];

COMPlf by COMPi2-COMPi3 COMPi4;

[COMPlf@0];

SElf by SEi4-SEi6;

[SElf@0];

OPTlf by opti4 OPTi5 OPTi3;

[OPTlf@0];

COMPlf with SElf;

COMPlf with OPTlf;

SElf with OPTIf;  
COMPlf on MEPBlf @0;  
Complf on Job Sex Age;  
SElf on MEPBlf Job Sex Age;  
OPTIf on MEPBlf Job Sex Age;  
Job with MEPBlf;  
Age with MEPBlf;  
Sex with MEPBlf;

output:

SAMPSTAT MODINDICES STAND RESIDUAL

### France Model

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:

NAMES ARE

Job Sex Age

MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8

COMPi1 COMPi2 COMPi3 COMPi4 COMPi5

SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10

OPTi1 OPTi2 OPTi3 OPTi4 OPTi5

MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9

Country

Religios1 Religios2 Religios3 Religios4 Religios5

Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEOBSERVATIONS = country EQ 2;

USEVARIABLES ARE

Job Age Sex

MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 ! COMPi4

SEi4 SEi5 SEi6

opti4 OPTi5;

Missing are .

ANALYSIS:

estimator=MLR;

Model:

MEPBlf by MEPBi2-MEPBi7;

[mepblf@0];

COMPIf by COMPi2-COMPi3;  
[COMPIf@0];  
SElf by SEi4-SEi6;  
[SElf@0];  
OPTIf by OPTi4 OPTi5;  
[OPTIf@0];

COMPIf with SElf;  
COMPIf with OPTIf;  
SElf with OPTIf;  
COMPIf on MEPBIf;  
SElf on MEPBIf;  
OPTIf on MEPBIf;  
Job with MEPBIf;  
Age with MEPBIf;  
Sex with MEPBIf;  
Job with age;  
Job with sex;  
sex with age;

output:  
SAMPSTAT MODINDICES STAND RESIDUAL

sampstat ModIndices standardized;

### **China Model**

DATA: File is Dissertation Data China France Cali Mplus Input 8.2.20.txt;

VARIABLE:  
NAMES ARE

Job Sex Age  
MEPBi1 MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7 MEPBi8  
COMPi1 COMPi2 COMPi3 COMPi4 COMPi5  
SEi1 SEi2 SEi3 SEi4 SEi5 SEi6 SEi7 SEi8 SEi9 SEi10  
OPTi1 OPTi2 OPTi3 OPTi4 OPTi5  
MESi1 MESi2 MESi3 MESi4 MESi5 MESi6 MESi7 MESi8 MESi9  
Country  
Religios1 Religios2 Religios3 Religios4 Religios5  
Authori1 Authorit2 Authorit3 Authorit4 Authorit5 Authorit6;

USEOBSERVATIONS = country EQ 3;

USEVARIABLES ARE

Job Age Sex  
MEPBi2 MEPBi3 MEPBi4 MEPBi5 MEPBi6 MEPBi7

COMPi2 COMPi3 COMPi4  
SEi4 SEi5 SEi6  
OPTi3 OPTi5;

Missing are .

ANALYSIS:  
estimator=MLR;

Model:

MEPBlf by MEPBi2-MEPBi7;  
[mepblf@0];  
COMPlf by COMPi2-COMPi3 COMPi4;  
[COMPlf@0];  
SElf by SEi4-SEi6;  
[SElf@0];  
OPTlf by opti3 OPTi5; !OPTi4;  
[OPTlf@0];

COMPlf with SElf;  
COMPlf with OPTlf;  
SElf with OPTlf;  
COMPlf on MEPBlf;  
SElf on MEPBlf;  
OPTlf on MEPBlf;  
Job with MEPBlf;  
Age with MEPBlf;  
Sex with MEPBlf;  
Job with age;  
Job with sex;  
sex with age;

output:  
SAMPSTAT MODINDICES STAND RESIDUAL

sampstat ModIndices standardized;